Oil and Hazardous Materials Response Reports

October 1986-September 1987

December 1987

Hazardous Materials Response Branch
Ocean Assessments Division
Office of Oceanography and Marine Assessment
National Oceanic and Atmospheric Administration
Seattle, Washington 98115

Index

Summary

During FY 87 (October 1986-September 1987), one hundred and forty-three incidents were responded to by the NOAA Hazardous Materials Response Branch, Ocean Assessments Division. These incidents are listed in chronological order in the first section of this report, followed by an index of responses involving materials other than oil. Ninety-three of these responses involved oil; forty-eight involved materials other than oil; and two involved search and rescue or other expert advice.

Each of the response reports addresses the nature of the incident, the level of NOAA involvement, and the final disposition of the incident. These reports are abbreviated and are meant to serve only as a summary of the NOAA Hazardous Materials Response Branch's response to requests from the Federal On-Scene Coordinators for each of the 143 events. Additional details on any of the responses can be obtained from the appropriate Scientific Support Coordinator or U.S. Coast Guard office.

Lori Harris
Editor

FY 87 Spill Responses by the Hazardous Materials Response Branch

Date of Incident	No.	Report Name	Commodity Involved	USCG District
2 Oct 86	1	U.S. Coast Guard Base Kodiak, Alaska	asbestos	17
3 Oct 86	2	Safe Keep Storage Hayward, California	methyl ethyl ketone ammonia	12
6 Oct 86	3	F/V Tony Kaye Moss Landing Monterey, California	800 gallons No. 2 diesel fuel	12
8 Oct 86	4	S/V Calliope Nashuwena Island Massachusetts	145 bales marijuana potential oil spill	1
14 Oct 86	5	U.S. Air Force F-106 Key Largo, Florida	300 gallons JP4	7
19 Oct 86	6	T/B Maria Teresa Jupiter, Florida	potential 6,000 gallons diesel fuel	7
21 Oct 86	7	Fuel Oil Spill San Francisco, California	50 barrels fuel oil	12
24 Oct 86	8	Dimethoate Spill Gilroy, California	sample jars dimethoate in 95% solution	12
27 Oct 86	9	Drew Ameroid International Sault Ste. Marie, Michigan	empty drums	9
28 Oct 86	10	C/V Nedlloyd Hollandia Ponce, Puerto Rico	potential 11,000 barrels bunker fuel	7
29 Oct 86	11	Mystery Container Newark, California	petroleum hydrocarbon base product	12
31 Oct 86	12	F/V Miss In Soo Monterey, California	potential 6,000 gallons No. 2 diesel fuel, 2 barrels lube oil	12
4 Nov 86	13	Northeast Petroleum Corp. Boston, Massachusetts	potential 395,000 barrels oil products	1
7 Nov 86	14	Cabin Cruiser Newport, Rhode Island	potential oil spill	1

Date of Incident	No.	Report Name	Commodity Involved	USCG District
14 Nov 86	15	Mystery Oil Slick Jamaica Bay New York, New York	oil	3
17 Nov 86	16	Plabell Rubber Products Inc. Maumee River, Ohio	2,000 gallons CIRCO LITE RPO	9
18 Nov 86	17	Mystery Oil Slick Coney Island, New York	no. 6 oil	3
18 Nov 86	18	T/B Rhode Island Long Island Sound Glen Cove, New York	150 gallons no. 6 oil	3
21 Nov 86	19	Caustic Soda Spill San Francisco, California	10 gallons caustic soda	12
27 Nov 86	20	T/B Interstate 70 Boston, Massachusetts	potential 63,000 barrels gasoline	1
29 Nov 86	21	Container Truck Oakland, California	methylcar banioyl, methyl thiosphorogithioate, dimethoate	12
1 Dec 86	22	New Bedford Public School System New Bedford, Massachusetts	laboratory chemicals	1
4 Dec 86	23	OOH Terminal Facility Oakland, California	battery acid	12
4 Dec 86	24	Petrol Service Saipan	potential 124,000 gallons diesel	14
4 Dec 86	25	Jet Fuel San Leandro, California	100 gallons Jet A fuel	12
8 Dec 86	26	M/V Pieniny 2 Bering Sea Alaska	oil spill	17

Date of Incident	No.	Report Name	Commodity Involved	USCG District
8 Dec 86	27	F/V Jamie Lynn St. Paul, Pribilof Islands Alaska	3,000 gallons diesel	17
8 Dec 86	28	T/V Amazon Venture Garden City, Georgia	500,000 gallons no. 6 oil	7
9 Dec 86	29	Van de Mark Chemical Company Lockport, New York	150 gallons isopropyl chloroformate	9
10 Dec 86	30	Aleutian Islands National Wildlife Refuge Adak Island, Alaska	27,000 gallons JP-5	17
10 Dec 86	31	T/V Philadelphia San Francisco, California	2-butoxyethanol 2-nitropropane picric acid kerosene	12
11 Dec 86	32	Cessna 172 Crash San Mateo, California	100 gallons aviation fuel	12
15 Dec 86	33	Sodium Metal Disposal Whittier, Alaska	sodium metal	17
15 Dec 86	34	Swanson River Oil Field Kenai Peninsula Alaska	well blowout	17
22 Dec 86	35	Barge Great Alaskan Dutch Harbor Unalaska, Alaska	potential ammonia release	17
22 Dec 86	36	M/V Docelotus Newport News Virginia	potential 300,000 gallons Bunker C	5
23 Dec 86	37	T/V Toros Bay Cocos Lagoon, Guam	potential 526,561 kg ammonium nitrate; 106,000 kg hexamethylenetenamine 20,000 gallons diesel fuel	14

Date of Incident	No.	Report Name	Commodity Involved	USCG District
27 Dec 86	38	Baron Beechcraft Crash Palo Alto, California	400 gallons aviation fuel	12
3 Jan 87	39	F/V Resolve New Bedford Harbor Massachusetts	30 unknown chemical drums; diesel	1
5 Jan 87	40	F/V Pacific Invader Point Saint George Crescent City, California	potential 20,000 gallons no. 2	12
6 Jan 87	41	T/V Aspen Point Arena, California	missing rudder search	12
7 Jan 87	42	F/V Allison Martha's Vineyard Massachusetts	search and rescue	1
12 Jan 87	43	Mystery Oil Spill Point Ano Nuevo Santa Maria, California	12 oiled birds	12
12 Jan 87	44	T/V Stuyvesant Gulf of Alaska to Baja California	15,000 barrels North Slope crude	17
12 Jan 87	45	T/S Captain Sam Rockaway Inlet, New York	potential 15,000 barrels no. 2 oil; 3,000 barrels heating oil; 12,000 barrels gasoline	3
13 Jan 87	46	Mystery Oil Leak Blake Island, Washington	1,000 gallons fuel oil	13
16 Jan 87	47	Colonial Oil Tank Farm Morehead City, North Carolina	potential 2,000,000 gallons no. 6 oil	5
19 Jan 87	48	Marathon Oil Company Upper Cook Inlet, Alaska	151 barrels diesel oil	17
19 Jan 87	49	Rollins Terminal, Inc. Bayonne, New Jersey	500,000 gallons 50% caustic soda solution	3
20 Jan 87	50	M/V Colima Point Reyes-Farallon Islands National Marine Sanctuary California	22.38 metric tons heavy fuel oil; 179.6 metric tons diesel oil; cotton	12

Date of Incident	No.	Report Name	Commodity Involved	USCG District
20 Jan 87	51	Barge Hana Laau Point, Molokai Hawaii	Bunker C	14
24 Jan 87	52	Tug Barbara R. MacAllister Morehead City, North Carolina	1,000 gallons oil	5
28 Jan 87	53	M/V Tempest Unimak Island, Aleutian Islands Alaska	potential fuel, chlorine, ammonia	17
31 Jan 87	54	T/V Glacier Bay Gulf of Alaska	potential 350,000 barrels North Slope crude	17
2 Feb 87	55	Mystery Diesel Spill Oakland Inner Harbor Oakland, California	diesel fuel	12
7 Feb 87	56	Oil Sighted Off Piedras Blancas Monterey, California	oil	12
9 Feb 87	57	F/V Fukuyoshi Maru #86 Bering Sea Between Dutch Harbor and Pribilofs	major fire potential 66,000 gallons diesel; 1,500 gallons lube oil	17
13 Feb 87	58	Oil Sighted Off Golden Gate San Francisco, California	400 gallons oil	12
17 Feb 87	59	T/B Peter Hearne Hudson River, New York	102,000 gallons gasoline	3
18 Feb 87	60	Dredge Atchafalaya Chincoteague Inlet Virginia	potential 15,000 gallons diesel	5
25 Feb 87	61	Barge Pampa Atlantic Ocean Off North Carolina	potential 500 tons carbon tetrachloride	5
26 Feb 87	62	T/B Callapooya Hydaburg Prince of Wales Island, Alaska	9,000 gallons no. 2	17
27 Feb 87	63	M/V Fern Passet St. Johns River Mayport, Florida	100,000 gallons no. 4	7

Date of Incident	No.	Report Name	Commodity Involved	USCG District
4 March 87	64	North American Phillips Light Lynn, Massachusetts	4,000 gallons butyl acetate	1
9 March 87	65	F/V Birgit Ulak Island, Alaska	10,000 gallons diesel	17
16 March 87	66	M/V Vardaas Key Biscayne, Florida	300 gallons oil	7
16 March 87	67	M/V San Juan Atlantic Ocean off Virginia	abandoned drums of flammable liquid	5
17 March 87	68	C/V Salta Monterey, California	potential oil spill	12
17 March 87	69	Mystery Slick Cape Canaveral, Florida	50 gallons oil	7
17 March 87	70	New York City Housing Authority The Bronx, New York	10,000 gallons no. 6	3
19 March 87	71	Perdue, Inc. Accomac, Virginia	2,000 gallons alum	5
20 March 87	72	Maher Warehouse Newark, New Jersey	sodium metabisulfite	3
20 March 87	73	F/V Al Alaskan St. Paul Island, Alaska	potential 140,000 gallons diesel	17
24 March 87	74	Eckham Materials Stamford, Connecticut	asphalt	3
25 March 87	75	Twin Engine Cessna Crash Half Moon Bay, California	300 gallons aviation fuel	12
26 March 87	76	Carrol & Carrol, Inc. Savannah, Georgia	500-1000 gallons oil	7
1 April 87	77	Air International Hangar St. Petersburg, Florida	100,000 gallons water, phenol, methylene chloride, cadmium, chromium	7

Date of Incident	No.	Report Name	Commodity Involved	USCG District
14 April 87	78	Arrow Transportation Company Dublin, California	5,000 gallons vinyl acetate, butyl acrylate, hydroquinone	12
15 April 87	79	M/V Honan Ace Prince of Wales Island Alaska	potential 300,000 gallons bunker fuel	17
16 April 87	80	Barge Repacid Virginia	potential 1,300 tons sulfuric acid	5
18 April 87	81	F/V Inede No Mans Island Massachusetts	potential 3,000 gallons diesel	1
21 April 87	82	T/V Jinei Maru Northwest of Bodega Bay California	oil slick	12
21 April 87	83	Diablo Canyon Nuclear Power Plant Morro Bay, California	68 pounds ferric sulfate	12
28 April 87	84	Mystery Oil Spill Pilarcitos Creek Half Moon Bay California	oil	12
2 May 87	85	Mystery Oil Spill Pacifica Ocean Beach Pacifica, California	tarballs on beach	12
6 May 87	86	F/V Tae Woong Uliaga Island Aleutian Islands Alaska	105,000 gallons diesel fuel	17
7 May 87	87	Chek Development Company San Rafael, California	100 gallons black oil	12
7 May 87	88	Hewlett-Packard Corporation Mountain View, California	roofing residue	12
7 May 87	89	F/V Pavlof St. Paul Island, Alaska	potential 20,000 gallons diesel fuel	17

Date of Incident	No.	Report Name	Commodity Involved	USCG District
8 May 87	90	Southern Pacific Railroad Oakland, California	fire of cotton bales with polyurethane packing	12
8 May 87	91	Boston Navy Yard Boston, Massachusetts	creosote oil	1
10 May 87	92	Tug Challenger San Luis Obispo California	18,000 gallons no. 2 150 gallons lube oil	12
12 May 87	93	Mystery Slick Key West, Florida	oil	7
18 May 87	94	Tank Truck Spill Stockton, California	500 gallons anthra-quinone acid, vanadium compound	12
18 May 87	95	Chevron Pipeline Waiawa Wildlife Refuge Honolulu, Hawaii	40,000-60,000 gallons Jet A fuel	14
21 May 87	96	Halico Engineering Oxnard, California	ammonia plume	12
25 May 87	97	F/V Shearwater Monomoy Island Nantucket Sound Masschusetts	potential 2,000 gallons diesel	1
26 May 87	98	Mystery Spill Rudee Inlet Virginia Beach, Virginia	algal bloom	5
29 May 87	99	Eastern Seaboard Petroleum Trout and St. Johns Rivers Jacksonville, Florida	8,200 gallons no. 6 oil	7
31 May 87	100	M/V Norma Pacific Ocean off Humboldt, California	diesel fuel and lube oil	12
4 June 87	101	Aerovox Company New Bedford, Massachusetts	zinc dust fire	1
4 June 87	102	F/V Beverly J Bodega Bay, California	100 gallons diesel	12

Date of Incident	No.	Report Name	Commodity Involved	USCG District
5 June 87	103	Barge Governor Hendricks Norfolk, Virginia	3,500 gallons black oil	5
12 June 87	104	Tank Trailer Port of Miami, Florida	anhydrous ammonia vapor problem	7
12 June 87	105	Commander Oil Oyster Bay, New York	ongoing gasoline, fuel oil seepage	3
15 June 87	106	C. E. Thurston Warehouse Norfolk, Virginia	crude rubber fire	5
16 June 87	107	Mystery Oil Slick Key Largo, Florida	5-20 barrels oil	7
18 June 87	108	Nitric Acid Spill Hayward, California	nitric acid	12
23 June 87	109	Tug William L. Coleman Chesapeake Bay Entrance Virginia	potential 2,500 gallons diesel	5
23 June 87	110	Mystery Slick Duck Key, Florida	oil	7
23 June 87	111	Mystery Slick Key West, Florida	algal bloom	7
24 June 87	112	U.S. Steel Corporation TOSCO Refinery Pittsburg, California	hydrochloric acid and iron oxide mixture	12
25 June 87	113	F/V Elma H Bodega Bay, California	200 gallons diesel	12
1 July 87	114	New Jersey Sludge Impact Seaside Heights, New Jersey	sludge on beach	3
2 July 87	115	T/V Glacier Bay Kenai, Cook Inlet Alaska	130,200 gallons North Slope crude	17
7 July 87	116	Simpson Paper Company Eureka, California	dinoflagellate	12

Date of Incident	No.	Report Name	Commodity Involved	USCG District
15 July 87	117	Boston Edison Mystic Station Everett, Masachusetts	20,000 gallons cable-insulating oil	1
17 July 87	118	CIBRO Oil East River New York	ongoing oil seepage	3
17 July 87	119	Barge Ocean Transporter Cape Fear River North Carolina	potential 700,000 gallons 50% solution caustic soda	5
23 July 87	120	Simpson Paper Company Eureka, California	caustic soda	12
23 July 87	121	Xerox Corporation Newark, California	diesel	12
23 July 87	122	Matheson Compressed Gas East Rutherford, New Jersey	potential 50,000 gallons 50% solution nitric acid	3
27 July 87	123	USS Fort Fisher Monterey Bay, California	diesel	12
28 July 87	124	Rhome Chemical Company Richmond, California	15 gallons battery acid	12
29 July 87	125	F/V Ruby II San Rafael, California	location of sunken vessel	12
3 Aug 87	126	Huntsman Chemical Company Chesapeake, Virginia	styrene, xylene, ethyl benzene	5
13 Aug 87	127	Mystery Oil Slick Miami, Florida	oil	7
19 Aug 87	128	Solid Waste New Jersey Coastline	ongoing solid waste, "hospital waste" beaching	3
19 Aug 87	129	Mystery Spill Narragansett Bay Rhode Island	diesel	1
19 Aug 87	130	Mystery Diesel Spill Narragansett Bay Rhode Island	diesel	1

Date of Incident	No.	Report Name	Commodity Involved	USCG District
20 Aug 87	131	Monroe County Mosquito Control District Vaca Key, Florida	6.8 gallons DIBROM 14	7
20 Aug 87	132	Boston Floating Dry Dock Co. Boston, Massachusetts	Flow Coat	1
23 Aug 87	133	Grounded Fishing Vessel Great Point, Nantucket Sound Massachusetts	potential 3,000 gallons diesel	1
28 Aug 87	134	Mystery Slop Bolinas Bay, California	unknown material	12
31 Aug 87	135	Tetrachloroethylene Spill Norfolk, Virginia	5-10 gallons tetrachloroethylene	5
1 Sep 87	136	Mystery Slick Atlantic City, New Jersey	weathered oil	3
1 Sep 87	137	Building 26, Coast Guard Island Alameda, California	sulfuric acid hydraulic fuel	12
3 Sep 87	138	Continental Stevedoring & Terminals Port of Miami Florida	acetic acid	7
9 Sep 87	139	Leslie Salt San Mateo, California	1,500 gallons diesel lube oil	12
10 Sept 87	140	M/V Princess Kathleen Juneau, Alaska	oil seep from sunken vessel	17
10 Sep 87	141	F/V Western One Moss Landing California	350 gallons diesel 55 gallons lube oil	12
13 Sep 87	142	F/V Great Islander 10 mi. south No Mans Island Massachusetts	3,500 gallons diesel	1
21 Sep 87	143	M/V Pacific Baroness Off Santa Barbara California	320,000 gallons heavy fuel oil; 52,000 gallons number 2 fuel oil	11

Spill Responses Other Than Oil

Commodity Involved	USCG District	Report Name	Date
acetic acid	7	Continental Stevedoring & Terminals	3 Sep 87
alum	5	Perdue, Inc.	19 March 87
ammonia methyl ethyl ketone	12	Safe Keep Storage	3 Oct 86
ammonia	17	Barge Great Alaskan	22 Dec 86
ammonia	12	Halico Engineering	21 May 87
ammonia chlorine	17	M/V Tempest	28 Jan 87
ammonia, anhydrous	7	Tank Trailer	12 June 87
ammonium nitrate hexamethylenetenamine	14	T/V Toros Bay	23 Dec 86
anthraquinone acid vanadium compoound	12	Tank Truck Spill	18 May 87
asbestos	17	U.S. Coast Guard Base	2 Oct 86
asphalt	3	Eckham Materials	24 March 87
battery acid	12	OOH Terminal Facility	4 Dec 86
battery acid	12	Rhome Chemical Company	28 July 87

Commodity Involved	USCG District	Report Name	Date
2-butoxyethanol 2-nitropropane picric acid kerosene	12	T/V Philadelphia	10 Dec 86
butyl acetate	1	North American Phillips Light	4 March 86
butyl acrylate vinyl acetate hydroquinone	12	Arrow Transportation Company	14 April 87
CIRCO LITE RPO	9	Plabell Rubber Products Inc.	17 Nov 86
cadmium methylene chloride phenol chromium	7	Air International Hangar	1 April 87
carbon tetrachloride	5	Barge Pampa	25 Feb 87
caustic soda	12	Caustic Soda Spill	21 Nov 86
caustic soda	12	Simpson Paper Company	23 July 87
caustic soda solution	3	Rollins Terminal, Inc.	19 Jan 87
caustic soda solution	5	Barge Ocean Transporter	17 July 87
chlorine ammonia	17	M/V Tempest	28 Jan 87
chromium methylene chloride cadmium phenol	7	Air International Hangar	1 April 87

Commodity Involved	USCG District	Report Name	Date
creosote oil	1	Boston Navy Yard	8 May 87
DIBROM 14	7	Monroe County Mosquito Control District	20 Aug 87
dimethoate	12	Dimethoate Spill	24 Oct 86
dimethoate methylcar banioyl methyl thiosphoro- githioate	12	Container Truck	29 Nov 86
ethyl benzene xylene styrene	5	Huntsman Chemical Company	3 Aug 87
ferric sulfate	12	Diablo Canyon Nuclear Power Plant	21 April 87
flammable liquid	5	M/V San Juan	16 March 87
Flow Coat	1	Boston Floating Dry Dock Co.	20 Aug 87
"hospital waste"	3	Solid Waste	19 Aug 87
hydrochloric acid and iron oxide mixture	12	U.S. Steel Corporation	24 June 87
hydroquinone butyl acrylate vinyl acetate	12	Arrow Transportation Company	14 April 87
isopropyl chloroformate	9	Van de Mark Chemical Company	9 Dec 86

Commodity Involved	USCG District	Report Name	Date
laboratory chemicals	1	New Bedford Public School System	1 Dec 86
marijuana	1	S/V Calliope	8 Oct 86
metabisulfite	3	Maher Warehouse	20 March 87
methylcar banioyl methyl thiosphoro- githioate dimethoate	12	Container Truck	29 Nov 86
methylene chloride phenol cadmium chromium	7	Air International Hangar	1 April 87
methyl ethyl ketone ammonia	12	Safe Keep Storage	3 Oct 86
nitric acid solution	3	Matheson Compressed Gas	23 July 87
phenol methylene chloride cadmium chromium	7	Air International Hangar	1 April 87
polyurethane packing	12	Southern Pacific Railroad	8 May 87
roofing residue	12	Hewlett-Packard Corporation	7 May 87
rubber, crude	5	C. E. Thurston Warehouse	15 June 87
sodium metal	17	Sodium Metal Disposal	15 Dec 86

Commodity Involved	USCG District	Report Name	Date
styrene xylene ethyl benzene	5	Huntsman Chemical Company	3 Aug 87
sulfuric acid	5	Barge Repacid	16 April 87
sulfuric acid hydraulic fuel	12	Building 26, Coast Guard Island	1 Sep 87
tetrachloroethylene	5	Tetrachloroethylene Spill	31 Aug 87
tetrachloroethylene hydraulic fuel	12	Building 26, Coast Guard Island	1 Sep 87
sulfuric acid	5	Tetrachloroethylene Spill	31 Aug 87
vinyl acetate butyl acrylate hydroquinone	12	Arrow Transportation Company	14 April 87
xylene styrene ethyl benzene	5	Huntsman Chemical Company	3 Aug 87
zinc dust	1	Aerovox Company	4 June 87

Response Reports

NOAA Response Report

S/V Calliope
Nashuwena Island, Massachusetts
October 8, 1986

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On October 8, 1986, the unmanned 42-foot sailing vessel Calliope grounded in the surf off Nashuwena Island, Massachusetts. Although the vessel was assumed to have less than 200 gallons of diesel fuel aboard, no pollution was observed.

NOAA RESPONSE

NOAA/OAD was notified of the incident on October 8, 1986, by the U.S. Coast Guard Marine Safety Office, Providence, Rhode Island, and requested to provide trajectory information and environmental resources at risk should the vessel's diesel fuel be released.

NOAA predicted that any impact to marine life would probably be restricted to the immediate vicinity of the vessel on Nashuwena Island. Potential resources at risk included shellfish beds along the shore. NOAA advised that the oil, if it was released at the quantities estimated, would be broken up in the high surf and high energy environment. Weather forecasts projected winds up to 35 knots; NOAA advised that, under these high surf conditions, the safety of personnel boarding the vessel should be considered first.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard removed 145 bales of marijuana from the vessel in 8- to 10-foot seas. The Calliope was abandoned following the removal of the marijuana.

BIBLIOGRAPHY

Research Planning Institute. 1980. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Massachusetts. An Atlas of Coastal Resources. Seattle: Ocean Assessments Division, National Oceanic and Atmospheric Administration.

Torgrimson, Gary M. 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12. Seattle: Ocean Assessments Division.

NOAA Response Report

Northeast Petroleum Corporation
Chelsea Creek, Boston, Massachusetts
November 4, 1986

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On November 4, 1986, approximately 175 feet of the retaining wall of the Northeast Petroleum Corporation tank farm, one of the largest in New England, collapsed into Chelsea Creek in Boston. Although the tank farm holds an estimated 395,000 barrels of oil products, only two storage tanks near the retaining wall were affected.

NOAA RESPONSE

NOAA/OAD was notified of the incident on November 4, 1986, by the U.S. Coast Guard Marine Safety Office (MSO), Boston, and requested to provide tide information, a trajectory analysis, and resources at risk information for a potential major oil spill.

NOAA also discussed booming strategies for the Chelsea Creek area, as well as the positioning of Northeast Petroleum's emergency response equipment to complement contractor owned equipment.

FINAL DISPOSITION OF THE INCIDENT

By November 7, the two tanks and transfer lines within the affected area had been drained and blanked off. The only remaining threat of pollution was posed by residual oils within tank numbers 28 and 29. However, the Coast Guard On-Scene Coordinator considered that these tanks remained on solid ground and that the chance of an oil release was therefore remote.

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Torgrimson, Gary M. 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12. Seattle: Ocean Assessments Division.

NOAA Response Report

Sunken Cabin Cruser
Newport Harbor, Rhode Island
November 7, 1986

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On November 7, 1986, an unnamed 40-foot cabin cruiser was reported on the bottom at Christy's Pier in Newport Harbor, Rhode Island. No pollution was observed at the time of the sinking.

NOAA RESPONSE

NOAA/OAD was notified of the incident on November 7, 1986, by the U.S. Coast Guard Marine Safety Office (MSO), Providence, and requested to provide tide information, a trajectory analysis, and resources at risk information for an oil spill should damage occur during attempts to refloat the vessel.

NOAA advised that fuel oil would stain many areas within the harbor and be carried with the incoming tide into sensitive marsh areas of Brenton's Cove. NOAA recommended booming strategies that would deflect oil away from the environmentally sensitive areas and out into Narragansett Bay's East Passage.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard monitored the vessel's condition until it was successfully refloated with no observed pollution.

BIBLIOGRAPHY

Research Planning Institute. 1980. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Massachusetts. An Atlas of Coastal Resources. Seattle: Ocean Assessments Division, National Oceanic and Atmospheric Administration.

Torgrimson, Gary M. 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12. Seattle: Ocean Assessments Division.

NOAA Response Report

T/B Interstate 70
Boston Harbor, Massachusetts
November 27, 1986

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 2240 on November 26, 1986, the tank barge Interstate 70, was moored alongside the tanker, Kriti Mountains, when the Kriti Mountains' anchor gave way and both vessels grounded in shoal waters adjacent to Deer Island at the approaches to Boston's inner harbor. The tank ship was empty of cargo with bunkers aboard totaling 4,000 barrels. The tank barge was carrying about 63,000 barrels of unleaded gasoline. The grounding of the vessels occurred immediately after completing lightering operations in the anchorage. Initial reports indicated that there was no apparent hull damage to either vessel.

NOAA RESPONSE

NOAA/OAD was notified of the incident on November 27, 1986, by the U.S. Coast Guard Marine Safety Office (MSO), Boston, and requested to provide tide information, a trajectory analysis, and resources at risk information for a potential major gasoline spill.

NOAA advised that a gasoline spill would evaporate rapidly and, under the tide and wind conditions forecast, possibly impact shoreline areas in the Boston metropolitan area with a significant potential for explosion and fire. NOAA characterized the impact on the environment as slight or difficult to observe if the gasoline slick remained in open water. However, gasoline on the shoreline would significantly impact coastal wildlife. NOAA predicted that 50 percent of the spilled gasoline would dissipate within one hour and 80 percent within 10 hours, with that the slick would be no longer visible within 24 hours.

FINAL DISPOSITION OF THE INCIDENT

Seven tugs pulled the Interstate 70 off Deer Island at 0056 on November 27. The barge was refloated and moved to the Army Base without pollution sighted. Dive surveys on November 28 did not detect damage to the hull.

By the early morning hours of November 27, the Kriti Mountains had also been refloated without incident.

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Research Planning Institute. 1980. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Massachusetts. An Atlas of Coastal Resources. Seattle: Ocean Assessments Division, National Oceanic and Atmospheric Administraiton.

Torgrimson, Gary M. 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12. Seattle: Ocean Assessments Division.

NOAA Response Report

New Bedford Public School System
New Bedford, Massachusetts
December 1, 1986

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On December 1, 1986, Building 42, a warehouse owned by the New Bedford Public School System was vandalized in New Bedford, Massachusetts. Several containers were broken and hydrochloric acid, sulfuric acid, anhydrous ammonia, formaldehyde, ethyl ether, chloroform and denatured alcohol were spilled within the warehouse. None of the material was reported to have entered new Bedford Harbor.

NOAA RESPONSE

NOAA/OAD was notified of the incident on December 1, 1986, by the U.S. Coast Guard Marine Safety Office (MSO), Providence, Rhode Island, and requested to assist in gathering information on the chemicals involved and advising on health and safety issues for Coast Guard monitors of the cleanup.

NOAA emphasized the importance of ventilation during the cleanup effort and advised that only persons directly involved in the cleanup and wearing Level A protective gear should enter the warehouse.

FINAL DISPOSITION OF THE INCIDENT

The Massachusetts Department of Environmental Quality Engineering monitored the cleanup operations.

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NOAA Response Report

F/V Allison
Martha's Vineyard, Massachusetts
January 7, 1987

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

The fishing vessel Allison capsized and sank south of Martha's Vineyard on January 7, 1987. One person on board was rescued from a liferaft by the U.S. Coast Guard. An air and sea search was initiated for four of the other members of the crew who did not make it into the life raft, but were believed to be wearing survival gear.

NOAA RESPONSE

NOAA/OAD was notified of the incident on January 7, 1987, by the First Coast Guard District's search and rescue (SAR) staff, and requested to help locate the remaining crewmembers.

NOAA's trajectory analysis corroborated the search pattern used by the Coast Guard. With the prevailing northwesterly winds, the survivors would be carried to the southeast and slightly to the west of the sinking.

FINAL DISPOSITION OF THE INCIDENT

The unsuccessful search for the missing crewmembers was called off on January 10, 1987.

BIBLIOGRAPHY

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NOAA Response Report

F/V Resolve
New Bedford, Massachusetts
January 3, 1987

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On January 2, 1987, the U.S. Coast Guard Marine Safety Office (MSO) in Providence, Rhode Island received a report that a sheen of diesel oil was emanating from the sunken fishing vessel Resolve into New Bedford Harbor. In addition, the approximately 30 55-gallon drums aboard the vessel were believed to contain bilge slops, bait, and seawater, the marking and labeling of the drums suggested that they contained a hazardous chemical.

NOAA RESPONSE

NOAA/OAD was notified of the incident on January 3, 1987, by the Coast Guard MSO, Providence, and requested to assess environmental resources at risk should additional oil be released from the sunken vessel, and suggest a sampling plan for the suspect drums.

NOAA advised that the oil would not be expected to be carried out of New Bedford Harbor into very sensitive natural resources, but recommended immediate booming of the Resolve to prevent the release of as much of the oil as possible. NOAA also suggested booming strategies to contain the spilling oil.

Because the suspect drums were labeled as products of ICI America, NOAA suggested that that company sample the drums' contents.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard MSO Providence boomed the vessel and contracted for divers to survey the hull and to plug fuel vents. No oil is now reported to be leaking from the sunken vessel. Sample analysis indicated that the drums contained a mixture of seawater and chemicals below the detection limits of ICI America's laboratory equipment (less than one part per million (ppm) NN bisacetoxy; less than one ppm ethylamine 4-bethoxy acetanilide; and less than 10 ppm ethyl cyanoacetic ester). This leads to the conclusion that the drums' labels simply had not been destroyed before the drums were put into use by the owner of the Resolve. The abandoned Resolve and her drums of seawater are awaiting final salvage decisions. The situation is now stable with no observed pollution.

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NOAA Response Report

North American Phillips Light Inc.
Lynn, Massachusetts
March 4, 1987

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On February 26, 1987, the U.S. Environmental Protection Agency (EPA) Region 1, Boston, was notified by the Lynn Fire Department that 2,100 to 7,000 gallons of butyl acetate had leaked from an underground tank at North American Phillips Light Co. EPA notified the U.S. Coast Guard Marine Safety Office (MSO), Boston, on March 2. On March 3, cleanup contractor investigations and Massachusetts Department of Environmental Quality Engineering (DEQE) monitoring of the situation suggested that no action was required by the Coast Guard. The Coast Guard case was closed, but on March 4, the Coast Guard MSO received a report from Massachusetts DEQE that an unknown amount of butyl acetate had leached into Lynn Harbor.

NOAA RESPONSE

NOAA/OAD was notified by the Coast Guard MSO Boston on March 4, 1987, and requested to provide a trajectory analysis, information on the chemical properties of butyl acetate, and health and safety recommendations for both Coast Guard investigators and contractor personnel.

Butyl acetate seepage below the ground surface and confirmation by the contractor's air monitoring program suggested that threshold limit value (TLV) limits were not exceeded and that respirator protection was not necessary for investigators.

FINAL DISPOSITION OF THE INCIDENT

The investigation by Coast Guard MSO personnel revealed that the facilities separator system may have added in the discharge into Lynn Harbor. The separator system discharges separated water and any other non oily material into a dry well which then may have leached the separated material (containing butyl acetate) into the ground water.

Sampling of the contents of the dry well and the area surrounding the leaking underground tank were taken by Clean Harbors personnel. Trace amounts of butyl acetate and butyl alcohol were reported in the samples from the dry well and the material surrounding the leaking tank. In addition, the vacuum trucks, which had removed 10,000 gallons of butyl acetate/water mixture from the facility, contained 86 parts per million (ppm) and 180 ppm respectively of polychlorinated biphenyls.

Separator discharge, at the recommendation of the Coast Guard, was collected by American Phillips Light's contractor, Clean Harbors. Massachusetts DEQE ordered American Phillips Light Inc. to allow no further discharge of the separator's effluent into the dry well (no discharge permit had been granted). By March 16, 1987, absorbent boom had been deployed around the leachate area and the separator discharge had been diverted back into the facility treatment system. The Coast Guard case was closed after Massachusetts DEQE assumed responsibility for monitoring cleanup operations.

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NOAA Response Report

F/V Inede
No Mans Island, Massachusetts
April 18, 1987

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On April 18, 1987, the fishing vessel Inede was reported aground and taking on water on the west side of No Mans Island, an island southwest of Martha's Vineyard. Initial attempts to refloat the steel-hulled vessel failed. Although no pollution was observed at the time of the grounding, deteriorating weather conditions could cause a spill.

NOAA RESPONSE

NOAA/OAD was notified of the incident on April 18, 1987, by the U.S. Coast Guard Marine Safety Office (MSO), Providence, Rhode Island, and requested to provide tide information, a trajectory analysis, and resources at risk information should damage occur during attempts to refloat the vessel.

NOAA advised that oil released in the surf zone would be carried onto No Mans Island. Oil not caught in the surf zone would move downwind, feathering out in about 200 yards. The total drift of product would be to the west into Rhode Island Sound.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard monitored the vessel's condition until it was successfully refloated with no observed pollution on April 19, 1987.

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NOAA Response Report

Boston Navy Yard
Boston, Massachusetts
May 8, 1987

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On May 8, 1987, the U.S. Coast Guard Marine Safety Office (MSO), Boston, received a report of a release of creosote oil from pilings being installed at the Boston Navy Yard. A sheen flowing from the construction site also contained pockets of a black, oily material and the creosote material on the surface of the new pilings was observed dripping into the water.

NOAA RESPONSE

NOAA/OAD was notified of the incident on May 8, 1987, by the Coast Guard MSO, Boston, and requested to provide information on creosote oil and its risk to the environment and potential risk to cleanup contractor personnel.

Material Safety Data Sheet (MSDS) information, provided by the NOAA Scientific Support Coordinator (SSC) to the Coast Guard, was distributed by the Coast Guard to other Federal agencies. The SSC also participated with the Coast guard Marine Safety Office in a number of meetings between the contractor, the National Park Service, and various government offices.

NOAA/OAD worked with the Coast Guard MSO to design cleanup recommendations which were limited both in scope and expense. These recomendations were provided by MSO Boston to the National Park Service.

FINAL DISPOSITION OF THE INCIDENT

The Massachusetts Department of Environmental Quality Engineering ordered the National Park Service to remove the creosote-treated pilings by August 31, 1987. The Park Service has contested this order and and has prepared numerous staff reports in an effort to select another cleanup option other than removal of the pilings. No cleanup has actually been conducted during these negotiations.

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NOAA Response Report

F/V Shearwater
Monomoy Island, Nantucket Sound
May 25, 1987

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On May 25, 1987, the 65-foot fishing vessel Shearwater was reported on fire 3 miles to the west of Monomoy Island in Nantucket Sound. Although no pollution was observed at the time of the fire, deteriorating weather conditions and rising seas could cause a leak.

NOAA RESPONSE

NOAA/OAD was notified of the incident on May 25, 1987, by the U.S. Coast Guard Marine Safety Office (MSO), Providence, Rhode Island, and requested to provide tide information, a trajectory analysis, and resources at risk information should fuel oil be released as a result of the fire.

NOAA advised that oil would move downwind, feathering out in about 200 yards. The total drift of product would be to the north. Landfall was not anticipated under the conditions forecast.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard extinguished the fire. No casualties or pollution from the Shearwater was observed.

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NOAA Response Report

Aerovox Company
New Bedford, Massachusetts
June 4, 1987

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

At about 1330 on June 4, 1987, a fire was discovered in a hopper bin at the Aerovox Company in New Bedford, Massachusetts. Initial reports indicated that over 1,000 pounds of zinc oxide were on fire. Initial attempts by the New Bedford Fire Department to put out the fire using dry chemical extinguishers and inert earth were not successful. Seven hours after the initial response, the fire was still smoldering.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 2030 on June 4, 1987, by the U.S. Coast Guard Marine Safety Office, Providence, Rhode Island, and requested to provide technical recommendations for extinguishing the fire.

NOAA confirmed that the material was, in fact, zinc dust, a residue of Aerovox's zinc plating operation. NOAA concurred with the Chemical Transportation Emergency Center's (CHEMTREC) recommendation that a dry chemical extinguishing agent be used. The New Bedford Fire Department had approximately 200 pounds of a dry chemical fire extinguisher, Metal X, on hand. NOAA/OAD's backup recommendation (if the dry chemical fire extinguisher did not work) was to flood the hopper bin with very large quantities of water.

The New Bedford Fire Department used the Metal X fire extinguisher and large quantities of Fuller's Earth. NOAA now advised that large quantites of water would an unsuitable backup plan under these conditions, because any quantity of water might not be able to get through the dry chemical and Fuller's Earth barrier to adequately cool the burning zinc. Under these conditions, hydrogen gas might be released, ultimately creating an explosive atmosphere.

FINAL DISPOSITON OF THE INCIDENT

The fire was reported extinguished at 2310 on June 4, 1987. On June 5, the hopper bin was emptied of all materials and placed back into service. The cause of the fire is not known. No pollution was reported outside of the hopper bin on the Aerovox facility.

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NOAA Response Report

Boston Edison Mystic Station
Everett, Massachusetts
July 15, 1987

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On July 15, 1987, the U.S. Coast Guard Marine Safety Office (MSO), Boston, received a report of a release of insulating oil from an underground power line at the Boston Edison Mystic Station in Everett, Massachusetts. A sheen had been sighted on the surface of the Mystic River and Clean Harbors, Inc. had been contracted for the cleanup effort.

NOAA RESPONSE

NOAA/OAD was notified of the incident on July 15, 1987, by the Coast Guard Marine Safety Office MSO, Boston, and requested to provide information on the insulating oil and its risk to the environment and potential risk to cleanup contractor personnel.

The NOAA Scientific Support Coordinator obtained Material Data Safety Sheets (MSDSs) for the insulating oils, Dichevrol Dielectric Fluid 100 and Sun 6 Insulating Oil, and provided the health and safety information to all concerned. Clean and field samples of the products were also provided to the Northeast Aquarium to determine whether the material had affected one of their sampling stations in the immediate area.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard monitored the contractor's cleanup operations through the end of July 1987. The spill's impact on the Northeast Aquarium's sampling station has not yet been determined.

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NOAA Response Report

Mystery Diesel Oil Spill
Narragansett Bay, Rhode Island
August 19, 1987

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On August 19, 1987, the U.S. Coast Guard Marine Safety Office (MSO), Providence, Rhode Island, received a report of a large oil slick, measuring 1-1/2 mile by 1 mile, between Prudence Island and Bristol Harbor in Narragansett Bay.

NOAA RESPONSE

NOAA/OAD was notified of the incident on August 19, 1987, by the Coast Guard MSO, Providence, and requested to provide a trajectory analysis for the oil spill. The Coast Guard also requested information on resources at risk, and weather forecasts for the area.

NOAA advised that the slick, if it was diesel oil as reported, would soon break up. Shoreline impact would be minimal with a limited staining at the high water mark of the area's gravel beaches. With the forecasted wind and the tide data, the Coast Guard MSO dispatched small boats to collect oil samples and to sample tanks of vessels in the area.

FINAL DISPOSITION OF THE INCIDENT

The small Coast Guard boats could not collect an usable sample of the oil in the slick by 1700 on August 19. By August 20 the slick had dissipated and could not be observed.

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NOAA Response Report

Boston Floating Dry Dock
Boston Harbor, Massachusetts
August 20, 1987

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On August 20, 1987, a U.S. Coast Guard Marine Safety Office, Boston, harbor patrol observed the release of an oily material from the Boston Floating Dry Dock Company. The dry dock hand been coated with a material, Flow Coat, on about August 19, 1987. On August 20, the dry dock sank at its mooring, releasing some of the coating material into the Boston Harbor.

NOAA RESPONSE

NOAA/OAD was notified of the incident on August 20, 1987, by the Coast Guard Marine Safety Office (MSO), Boston, and requested to research the spilled chemical, Flow Coat, and determine whether it should be classified as a petroleum product or as a chemical. NOAA advised that the material was classified by its manufacturer, Mobil Oil, as a petroleum product with sulfinate rust inhibitors.

FINAL DISPOSITION OF THE INCIDENT

The U.S. Coast Guard monitored the owner and his contractor's cleanup and prepared a violation report.

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NOAA Response Report

Grounded Fishing Vessel
Great Point, Nantucket Sound, Massachusetts
August 23, 1987

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On August 23, 1987, an unnamed, 50-foot, wood fishing vessel was reported aground and taking on water on the east side of Great Point, Nantucket Island, Massachusetts. Initial attempts failed to refloat the wood hulled vessel. No pollution was observed at the time of the grounding, although the weather was deteriorating.

NOAA RESPONSE

NOAA/OAD was notified of the incident on August 23, 1987, by the U.S. Coast Guard Marine Safety Office (MSO), Providence, Rhode Island, and requested to provide tide information, a trajectory analysis, and analysis of resources at risk should damage occurred during attempts to refloat the vessel.

NOAA advised that oil, if it was released in the surf zone, would be carried onto Nantucket Island. Oil not caught in the surf zone would move downwind, feathering out in about 200 yards. The total drift of product would be eastward into Nantucket Sound.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard monitored the vessel's condition until it was successfully refloated with no observed pollution on August 25, 1987.

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NOAA Response Report

Mystery Black Oil Spill
Jamaica Bay, New York, New York
November 14, 1986

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On November 14, 1986, the U.S. Coast Guard Captain of the Port (COTP), New York, received a report of a large oil slick measuring 10 miles long in Jamaica Bay, approximately 15 miles offshore of the John F. Kennedy International Airport.

NOAA RESPONSE

NOAA/OAD was notified of the incident on November 14, 1986, by the Coast Guard COTP, New York, and requested to provide an oil spill trajectory and weather forecasts. NOAA advised that the slick would move offshore.

FINAL DISPOSITION OF THE INCIDENT

The slick was not visible by November 15.

BIBLIOGRAPHY

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NOAA Response Report

Mystery Black Oil Spill
Coney Island, New York
November 18, 1986

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On November 18, 1986, the U.S. Coast Guard Captain of the Port (COTP), New York, received a report of a large number 6 oil slick off Coney Island. A Coast Guard helicopter overflight confirmed a slick on the east side of New York Harbor. Oil was also reported to have come ashore on Coney Island and on Sandy Hook, New Jersey.

NOAA RESPONSE

NOAA/OAD was notified of the incident on November 18, 1986, by the U.S. Coast Guard COTP, New York, and requested to consider whether the oil would move into Jamaica Bay.

NOAA's trajectory indicated that, with north to northeast winds greater than 25 knots, the flood tide into Jamaica Bay would not be strong enough to pull the slick into Jamaica Bay. However, for the ocean conditions forecasted, NOAA advised the Coast Guard of several potential landfalls along the New Jersey coast.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard COTP, New York, investigated the potential impact points recommended by NOAA, but the oil was not visible the next day and beach impacts were not evident.

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NOAA Response Report

T/B Rhode Island
Long Island Sound
Glen Cove, New York
November 18, 1986

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On November 18, 1986, the tank barge Rhode Island was en route from Bayonne, New Jersey to New London, Connecticut when it was suspected to have released an estimated 450 gallons of number 6 fuel oil into the waters of Long Island Sound. Oil was most visible at Hempstead Harbor and between Oak Neck Point and Rocky Point on Long Island's North Shore.

NOAA RESPONSE

NOAA/OAD was notified of the incident on November 18, 1986, by the U.S. Coast Guard Captain of the Port (COTP), New London, Connecticut, and requested to provide a trajectory analysis for the oil spill. The Coast Guard also requested information on resources at risk, information on the nature of the oil, and weather forecasts for the area.

With NOAA's assistance, the Coast Guard COTP, New London, developed plans for oil recovery on the shoreline and directed the contractor to protect sensitive environmental areas. Oil spill barriers were placed at Glen Cove and Oyster Bay to protect especially sensitive environmental areas.

FINAL DISPOSITION OF THE INCIDENT

After the Rhode Island's tanks were gauged in New London, 150 gallons of the number 6 oil product was estimated to have been spilled along an 18- mile stretch of Long Island Sound. The oil spill barriers at Glen Cove and Oyster Bay successfully protected the sensitive wildlife areas within their boundaries. The oil spill contractors reported that they had recovered 130 gallons of number 6 oil on the shoreline of Long Island Sound.

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NOAA Response Report

T/S Captain Sam
Rockaway Inlet, New York
January 12, 1987

Jay Rodstein, Scientific Support Coordinator

INCIDENT REPORT

On January 11,1987, the U.S. Coast Guard Captain of the Port (COTP), New York, was notified that the tank ship Captain Sam had run aground at the entrance to Rockaway Inlet, New York, while making a delivery of its cargo from Staten Island to Queens, New York. The vessel was carrying 12,000 barrels of gasoline and 3,000 barrels of heating oil. The vessel also contained 15,000 barrels of #2 diesel oil for fuel. The shipper took responsibility from the start and was preparing to refloat the vessel at the next high tide. The Coast Guard monitored the shipper's activity closely throughout this potential major incident.

NOAA RESPONSE

NOAA/OAD was notified of the incident on January 12, 1987, by the Coast Guard COTP, and requested to identify the potential for environmental effects from a spill, and to comment on the shipper's planned refloating operation.

NOAA advised that the planned refloat during the flood stage of the high tide put at risk a variety of sensitive resources inside Rockaway Inlet at Jamaica Bay. This risk was noted; however, to ensure the greatest likelihood of operational success, refloat could not be restricted to the ebb stage of the high tide. Given the necessity to assume this risk, recommendations on protective measures were provided given various meteorologic and oceanographic conditions.

FINAL DISPOSITION OF THE INCIDENT

The vessel was successfully refloated around 1800 on January 12, 1987. No spill occurred and no damage to the vessel was observed. The vessel returned to its home port for a thorough inspection.

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NOAA Response Report

Rollins Terminal, Inc.
Bayonne, New Jersey
January 19, 1987

Jay Rodstein, Scientific Support Coordinator

INCIDENT SUMMARY

The failure of a 600,000-gallon tank at the Rollins terminal in Bayonne, New Jersey, resulted in a spill of approximately 450,000 gallons of caustic soda into the Kill Van Kull, which separates Bayonne from Staten Island, New York. The leak was reported by Rollins to the U.S. Coast Guard Captain of the Port (COTP), New York on January 19, 1987.

The local fire department was the first responder and aided the facility in diking the released caustic, thereby preventing additional caustic from reaching the Kill. The Coast Guard COTP and New Jersey Department of Environmental Protection (DEP) advised the facility on appropriate methods to reduce effects to the environment and ensure compliance with environmental laws.

A brown, milky plume was observed along the shore of the Kill and out approximately 100 feet before it dissipated. Testing of pH with litmus paper revealed the pollutant to be of a pH greater than 14 along the shore, where it entered the water.

NOAA RESPONSE

NOAA/OAD was notified of the incident on January 19, 1987, by the Coast Guard COTP, New York, and requested to advise on neutralization procedures and potential effects of the caustic pollutant to human health and the environment.

NOAA responded within two hours with recommendations for neutralization procedures and human health and environmental effects. NOAA recommended containment and recovery of the pollutant from land as the best method of mitigation, since environmental laws restrict treatment with many neutralization agents.

The OSC was advised of the direct contact threat of caustic. NOAA further recommended that protective clothing should be worn by personnel potentially in contact with the spilled material, and that water users should be advised immediately of the situation. The OSC was also advised of the large wintering bird population in the area.

Further detail was provided on January 20 at a meeting at the Rollins facility. The information provided on the fate of the pollutant in the water was used as the basis for a sampling plan which was implemented by a team composed of the facility, Coast Guard, and NOAA.

FINAL DISPOSITION OF THE INCIDENT

The results of the shoreline and water sampling indicated that the caustic had been neutralized by natural dilution factors. No environmental effects were observed. New Jersey DEP is continuing to monitor the facility's cleanup. The Coast Guard COTP continues to seek information regarding the cause of the tank failure, as there are other tanks of the same age and use, in service.

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NOAA Response Report

Tank Barge Peter Hearne
Hudson River, New York
February 17,1987

Jay Rodstein, Scientific Support Coordinator

INCIDENT SUMMARY

The grounding of the tank barge Peter Hearne on February 17,1987 released 102,000 gallons of premium unleaded gasoline into the Hudson River, approximately two miles north of the Bear Mountain Bridge, immediately south of West Point, New York. The total volume of cargo carried by the barge was approximately 800,000 gallons.

The Coast Guard cutter Penobscot Bay was near the scene and represented the U.S. Coast Guad Captain of the Port (COTP), New York, on-scene. The barge's owner took necessary actions to minimize the quantity released.

Observers from the Coast Guard and the New York Department of Environmental Conservation (NYDEC) reported that the pollutant was flowing down the middle of the River. During the spill, the river experienced a full tidal excursion, the flow shifting from south to north. Observers noted no visible product on the water greater than 4 miles from the spill site. Conditions on scene were normal winter conditions for the Hudson, 10-knot winds from the north, temperature of 0 degrees Celsius, and ice covering the shores and slower moving areas.

NOAA RESPONSE

NOAA/OAD was notified of the incident on February 17, 1987, by the Coast Guard COTP, New York, and requested to advise on alternative mitigation measures. Specifically, NOAA was asked to compare containment and the risk to personnel collecting the flammable liquid, versus allowing the pollutant to dissipate with the associated risk to water users and environmentally sensitive resources.

Before advising the OSC to allow the pollutant to dissipate, NOAA evaluated the volatility, solubility, and toxicity of the pollutant; the physical properties of the pollutant; conditions at the site; and the potential risks to environmental and natural resources given the nature of the pollutant, conditions at the site, and the location of the spill in relation to those resources.

NOAA's recommendation was based upon the following factors:

1) Evaporation and solubility of the pollutant are such that even under the winter conditions, which reduce these physical characteristics, the gasoline would be undetectable after several days.

2) The thick shore ice would act as a natural boom, deflecting the lighter than water gasoline into the flowing portion of the river.

3) The Doodletown Bight, approximately 2.5 miles south of the spill site, is a Natural Estuarine Sanctuary and is an important wintering area for fisheries. Another sensitive area, Foundry Cove, is approximately 2 miles north of the incident. While the solubility of the pollutant

could technically exceed toxicity levels to fish, the conditions of the river and the expected location of the fish at the bottom of the water body reduced the likelihood of impact to environmentally sensitive resources.

4) Water users in the vicinity should be notified of the incident; however, the heavy ice conditions described above would result in reduced likelihood of impact to water users.

5) The potential for flammable mixtures was likely if the Coast Guard decided to collect the pollutant. Extreme care would be necessary to insure ignition sources, e.g., small boat engines and motors for pumps, were kept away from the collection areas.

FINAL DISPOSITION OF THE INCIDENT

The vessel was lightered, refloated, and returned to its homeport in New York City for repairs. No adverse effects were observed or reported to the Coast Guard or NYDEC. Both agencies were present in the incident area through February 19, 1987.

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Overton, Dr. Edward, Louisiana State University Institute for Environmental Studies, Baton Rouge, Louisiana, personal communication, February 17,1987.

NOAA Response Report

New York City Housing Authority
Throgs Neck, Bronx, New York
March 17, 1987

Jay Rodstein, Scientific Support Coordinator

INCIDENT DESCRIPTION

On February 27, 1987, the New York City Housing Authority (NYCHA) reported a spill of 10,000 gallons of number 6 fuel oil from one of the fuel storage tanks at Housing Authority apartment buildings in the Schuyler area of the Bronx. The New York City Department of Environmental Protection thought the spill had dissipated but on March 10, the U.S. Coast Guard Captainof the Port (COTP), New York, was notified that number 6 oil had leaked from a sewer outfall directly connected to the apartment complex. The NYCHA accepted responsibility for the incident but was unable to initiate response due to an internal contracting issue. On March 17, the Coast Guard COTP federalized the spill. Response action was initiated on March 18.

NOAA RESPONSE

NOAA/OAD was notified of the incident on March 17, 1987, and asked to survey the spill location, identify impacted areas, and recommend a strategy for cleanup. This survey took two days and was performed with the Coast Guard COTP.

Recommendations for the areas of greatest impact and potential risk were the first priority, so that cleanup could begin immediately. Environmental resources at risk were not significant in the affected area; shorelines where oil collected were generally littered with debris (household garbage and floatsam). Additionally, the delay between the time of the initial spill and the initiation of the cleanup allowed the oil to weather and become sticky, with minimal sheen observed by March 19. These factors contributed to the actions recommended by NOAA: 1) Use high pressure steam on rocky shorelines, rip-rap, and bulkheads and to collect residue; 2) Collect oiled debris throughout the impacted area and contain for subsequent disposal; and 3) Oiled seaweed, where attached to rocks, should be cleaned or removed. It was not deemed necessary to remove all traces of oil from the gravel beaches and shorelines described above. One pass with the apparatus should result in the most productive use of resources and environmental protection.

It is realized that, by limiting the level of cleanup, small tar balls are likely to form due to degradation. In addition, minor sheening may occur due to the changing state (liquefying) of the weathered oil during the warmer months ahead. It was felt that insufficient environmental protection would be provided by continued cleanup efforts.

NOAA was on-scene to assess progress on March 24. The cleanup seems to be progressing at a reasonable pace. Completion of cleanup is anticipated by March 27.

FINAL DISPOSITION OF THE INCIDENT

The cleanup is in process at this time. The responsible party, NYCHA, has monitored the cleanup and will be assessed the cost of cleanup, in addition to civil penalties.

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NOAA Response Report

Maher Warehouse
Newark, New Jersey
March 20,1987

Jay Rodstein, Scientific Support Coordinator

INCIDENT SUMMARY

At 1230 on March 20, 1987, the U.S. Coast Guard Captain of the Port (COTP), New York, received an anonymous phone call from an employee at the Maher Warehouse in Newark New Jersey. The employee reported workers with bloody noses and vomiting during their shift on the evening of March 19. The Coast Guard contacted the facility's Safety Officer, who was unaware of the problem, and arranged a meeting on site to evaluate the facility and personnel.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1250 on March 20, 1987 by the Coast Guard COTP, and requested to correlate known products at the warehouse with the reported effects on workers. The products reported to be in the warehouse were diatomaceous earth, sodium metabisulfite, and a Manville product labelled "...may cause silicosis..."

NOAA contacted the National Institute of Health Centers for Disease Control (CDC) for assistance. The sodium metabisulfite was identified as the product most likely to cause the reported effects. In addition, CDC provided information from the National Library of Medicine database, TOXNET, regarding followup to the exposures.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard team on-scene observed poor housekeeping in the warehouse, including significant levels of all three products on the floor. The Maher Warehouse Safety Officer had checked on the affected employees; all had experienced relief from the symptoms. According to CDC, the effects of the sodium metabisulfite exposure were acute and, once the symptoms were gone, treatment or monitoring would not be necessary.

NOAA informed the Coast Guard COTP that the poor housekeeping practices could result in similar occurrences at the facility. Additionally, chronic exposure to the Manville product should be restricted in accordance with the warning regarding silicosis. The Coast Guard related NOAA's advice to the Maher Warehouse Safety Officer.

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Overton, Dr. Edward, Louisiana State University Institute for Environmental Studies, Baton Rouge, personal communication, March 20, 1987.

NOAA Response Report

Eckham Materials
Stamford, Connecticut
March 24, 1987

Jay Rodstein, Scientific Support Coordinator

INCIDENT SUMMARY

In March 1987, observations of floating chunks of asphalt and a sheen in the Stamford Harbor area were received by the Coast Guard Captain of the Port Long Island Sound (COTP LIS) from the City of Stamford, Connecticut. The Coast Guard traced the reports to a spill which had been caused in February 1986 by a tank failure at the Eckham Materials facility along the East Branch of the Stamford River. Cleanup by the facility included dredging the river bottom adjacent to the facility. Reports of the type recently received by the Coast Guard have been made intermittently during the spring through fall seasons of 1986.

NOAA RESPONSE

NOAA/OAD was notified of the incident on March 24, 1987, by the Coast Guard On-Scene Coordinator and asked to visit the site with COTP LIS personnel to assess the nature of the impact and recommend action based upon the effect on the marine environment.

On March 30, the NOAA Scientific Support Coordinator (SSC) accompanied COTP LIS personnel on a site visit. During the visit, the SSC observed the area surrounding the Eckham plant to be a highly industrialized area. Bottom samples in the East Branch were taken and were qualitatively assessed.

Further investigation included meeting with the facility manager and Eckham's cleanup contractor regarding the incident and cleanup, telephone conversations with ARCO (Eckham's supplier of AC-20, the spilled asphalt product) and the Asphalt Institute regarding specifications of the spilled product, telephone conversations with City of Stamford Health Department Inspectors regarding their knowledge of this incident, and consultation with NOAA's chemistry, resources-at-risk, and trajectory analysis groups to assess this incident and formulate a recommendation.

FINAL DISPOSITION OF THE INCIDENT

NOAA's report to the Coast Guard concluded that, while there is residual AC-20 on the river bottom, which can be brought to the surface during deep draft vessel movement in the channel, there is no appreciable migration of the AC-20. It was recommended that no further action be required of Eckham Materials by the Coast Guard. This recommendation was made based on the limited aquatic life in the immediate area of the residual AC-20 , the toxicity of AC-20, and the dilution between the affected area and aquatic life in the River and Sound.

The Coast Guard accepted NOAA's recommendation and has not required further action of Eckham and has reported this to the City of Stamford.

BIBLIOGRAPHY

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NOAA Response Report

Commander Oil
Oyster Bay, New York
June 12, 1987

Jay Rodstein, Scientific Support Coordinator

INCIDENT SUMMARY

Commander Oil is an oil transfer facility in Oyster Bay, New York on the North Shore of Long Island. The facility has had a history of leaching problems since October 1984. The U.S. Coast Guard has encouraged the facility owner to mitigate the problem. Most recently, in May 1987, the Coast Guard Captain of the Port (COTP), Long Island Sound, intensified the investigation of Commander Oil using the Port Safety Detachment (PSD) at Port Jefferson, New York.

Oil discharge into White's Creek, a tributary to Oyster Bay, which empties into Long Island Sound, was observed by PSD Port Jefferson inspectors in June 1987. The U.S. Environmental Protection Agency (EPA) accompanied the Coast Guard inspectors on June 11, and issued a Spill Prevention, Control, and Countermeasures (SPCC) violation to the facility. On a subsequent visit in June, no progress toward mitigation was observed by Coast Guard inspectors.

NOAA RESPONSE

NOAA/OAD was notified of the problem on June 12, 1987, by the Coast Guard Captain of the Port, Long Island Sound. On June 17, the NOAA Scientific Support Coordinator (SSC) accompanied Coast Guard Port Safety Detachment Port Jefferson personnel to the site. At low tide, petroleum products were observed leaching through cracks in a dike. The diked area contained various fuel oils in bulk. Sediments in the intertidal area exhibited a sheen when touched with a shovel. Unattended booms and passive recovery wells were not effective in controlling the release. Additionally, no attempt at estimating the spill volume or distribution had been undertaken.

NOAA reported to the Coast Guard that the site posed a significant problem and that the present methods of mitigation, even optimally applied, would not eliminate the problem.

CURRENT DISPOSITION OF THE INCIDENT

The Coast Guard COTP has required the facility to hire a qualified consultant to evaluate the site, recommend a solution, and implement the remedy. NOAA has evaluated the consultant's proposal. A report of the evaluation has been provided to the Coast guard. Presently, the facility is in the process of installing an active recovery system to remove the plume underlying the site. Installation of the recovery system is to be completed by November 20, 1987. The period required for recovery is not known; however, it will be followed by removal of contaminated soils from the intertidal area. Dike integrity is being evaluated by EPA.

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Walker, Ann Hayward, National Oceanic and Atmospheric Administration, Alexandria, Virginia, personal communication, June-October 1987.

NOAA Response Report

New Jersey Sludge Impact
Seaside Heights, New Jersey
July 1, 1987

Jay Rodstein, Scientific Support Coordinator

INCIDENT SUMMARY

On May 27, 1987, a large volume of sludge was observed to have washed up at Seaside Heights, New Jersey. This type of washup occurs occasionally throughout the year. Local and State officials cleaned up the sludge and subsequently notified the U.S. Coast Guard Captain of the Port (COTP), New York, at a regional meeting at the end of June 1987. The New Jersey Department of Environmental Protection asked the Coast Guard to help identify potential sources of the sludge.

NOAA RESPONSE

NOAA/OAD was notified of the incident on July 1, 1987, by the Coast Guard COTP, New York, and asked to provide a trajectory analysis of the sludge washup. The NOAA Scientific Support Coordinator acquired the best available information on location and time of sludge landing and weather observations for the period. Based on this information, NOAA predicted source direction and distances for the seven day period prior to the reported landing.

FINAL DISPOSITION OF THE INCIDENT

The direction and distance over the prediction period show the "twelve mile dumpsite," an authorized municipal sludge dump site, to be within the area of influence of the landed sludge. While this does not implicate the "twelve mile dumpsite" as the source, it can be still considered a potential source.

BIBLIOGRAPHY

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NOAA Response Report

CIBRO Oil
The Bronx, New York
July 17, 1987

Jay Rodstein, Scientific Support Coordinator

INCIDENT SUMMARY

CIBRO Oil Corporation's Oceana Terminal in The Bronx, New York, was the site of a tank failure which was first discovered in November 1986. The site is an oil transfer facility on the East River. Cleanup and structural evaluation took place during the winter of 1986. A stress fracture in the base of the 500,000-gallon #6 oil storage tank was identified as the cause of the leak. Volume of lost product could not be calculated from inventory records. In July of 1987, minor seepage from the facility became severe during a particularly warm period.

NOAA RESPONSE

NOAA/OAD was notified of the incident in July 1987, by the Coast Guard COTP, and asked to help assess the site. On July 23, 1987, the NOAA Scientific Support Coordinator (SSC) accompanied COTP NY investigators to the site. Seepage was occurring from the rip rap which makes up the boundary between the facility and the East River. Booms placed in the river were not adequately containing the seepage. A passive recovery well placed between the failed tank and the River had collected a minimal amount of product over the period of several months since installation.

The Coast Guard COTP, the facility manager, and the SSC discussed methods to mitigate the problem. The SSC recommended to the Coast Guard that the facility required professional guidance in assessing and mitigating the problem. Additionally, the SSC recommended that the New York State Department of Environmental Conservation and New York City Department of Environmental Protection be brought in to assess their interests.

CURRENT DISPOSITION OF THE INCIDENT

The Coast Guard required CIBRO to provide a proposal for mitigating the release of oil to surface waters. In August a proposal was submitted by CIBRO to the Coast Guard, who asked NOAA to assess the proposal. Review of the proposal by NOAA resulted in an unfavorable recommendation. The Coast Guard required a more detailed plan at a meeting with the facility manager. At the COTP NY's request the SSC attended the meeting at the Oceana Terminal on August 27, 1987. As a result of this meeting, the facility manager was required to have a competent professional assess the site and recommend detailed action to mitigate the problem. No deadline was set for this action. As of October 24, no further request has been made of NOAA.

BIBLIOGRAPHY

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NOAA Response Report

Matheson Compressed Gas
East Rutherford, New Jersey
July 23, 1987

Jay Rodstein, Scientific Support Coordinator

INCIDENT SUMMARY

On July 23, 1987, the Matheson Compressed Gas facility in East Rutherford, New Jersey, reported the failure of a 50,000-gallon tank of 50% solution nitric acid. The U.S. Coast Guard Captain of the Port (COTP), New York, dispatched investigators to the scene.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1330 on July 23, 1987, by the Coast Guard COTP, New York, and asked to help determine the chemical hazards to personnel and environmental effects to Ackerman Creek, an adjacent tributary to the Hackensack River. NOAA provided technical information on the properties of nitric acid to the Coast Guard and review environmental sensitivity maps.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard investigators observed the cleanup and temporary patching. No injury to personnel or release to Ackerman Creek occurred.

BIBLIOGRAPHY

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NOAA Response Report

New Jersey Solid Waste Washup
New Jersey Seacoast
August 19, 1987

Jay Rodstein, Scientific Support Coordinator

INCIDENT SUMMARY

During the period from August 13 to August 15, 1987, a large volume of solid waste, including hazardous substances (hospital waste) washed up between Long Beach Island and Cape May along the New Jersey seacoast. The U.S. Environmental Protection Agency (EPA), New Jersey Department of Environmental Protection (DEP), and local authorities provided cleanup resources and tracked the real-time movements of the solid waste plume. On August 17, the U.S. Coast Guard Captain of the Port (COTP), New York, was requested to identify potential sources of the landed waste.

NOAA RESPONSE

NOAA/OAD was notified of the incident on August 19, 1987, by the Coast Guard COTP, New York, and asked to provide a trajectory analysis.

Even though the support was being provided after-the-fact, timing was important to the investigation. The NOAA Scientific Support Coordinator (SSC) obtained weather data; and observed landing locations, times, and volume estimates. From August 20 through August 22, the SSC made site visits and conducted interviews with Coast Guard, EPA, New Jersey DEP, Island Beach State Park, and local government personnel who were on-scene during the impact period. This afforded a complete picture of the incident which had not been assembled to this point.

NOAA provided a trajectory hindcast, predicting that the plume came from offshore. Physical evidence recovered by the New Jersey Attorney General's office indicated the suspected source to be New York Harbor. Scenarios were run to predict the conditions required for the source to be New York Harbor. NOAA concluded that, though it was not impossible, New York Harbor was probably not the source. This information was provided to the Coast Guard and, at the Coast Guard's request, the New Jersey Attorney General.

FINAL DISPOSITION OF THE INCIDENT

The State of New Jersey is suing the City of New York claiming that the City Department of Sanitation garbage barge loading facility in Gravesend Bay is the source of the hazardous waste. Both parties have received NOAA's reports and have used it as evidence for their case. The New Jersey Attorney General requested clarification of certain points in the report and the SSC has responded to this request. No further action has been requested by the Coast Guard

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NOAA Response Report

Mystery Slick
Atlantic City, New Jersey
September 1, 1987

Jay Rodstein, Scientific Support Coordinator

INCIDENT SUMMARY

On September 1, 1987, a slick of unknown origin was reported to the U.S. Coast Guard Captain of the Port (COTP), Philadelphia. The Coast Guard and New Jersey Department of Environmental Protection (DEP) performed an overflight and identified the slick as a weathered oil mixed with solid waste.

NOAA RESPONSE

NOAA/OAD was notified of the incident on September 1, 1987, by the Coast Guard COTP, Philadelphia, and asked to track the surface movement of the slick.

The Coast Guard provided NOAA with daily updates of slick location, based on overflights performed each morning. Based on these observations, NOAA daily presented updated trajectories to the Coast Guard.

On September 3, the Coast Guard On-Scene Coordinator asked NOAA to evaluate the merits of applying dispersants in this case. The NOAA Scientific Support Coordinator recommended against the use of dispersants due to the reported weathering of the oil, and significantly reduced effectiveness of dispersants expected on weathered oil.

FINAL DISPOSITION OF THE INCIDENT

The slick continued to move offshore, as predicted, during the period from September 1 through September 6, at which time it was assumed to be dissipated. However, on September 7, a slick was reported in the vicinity of the original slick. It has been assumed that the second slick was part of the original slick. No slick was observed during the September 8 overflight. There is no known source of the slick(s). The Coast Guard has closed its case.

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NOAA Response Report

M/V Docelotus
Newport News, Virginia
December 22, 1986

Ann Hayward Walker, Scientific Support Coordinator

INCIDENT SUMMARY

The 790-foot M/V Docelotus, carrying 400,000 gallons of bunker fuel, ran aground in the Newport News Ship Channel on the morning of December 20, 1986. Because the vessel was hard aground in mud at mid-ship, there was concern that it would be very difficult to refloat the vessel. Because the vessel was double-hulled and new, potential release was not likely.

NOAA RESPONSE

NOAA/OAD was notified of the incident on December 22, 1986, by the U.S. Coast Guard Fifth District, Portsmouth. In subsequent conversations with the Coast Guard Marine Safety Office at Hampton Roads, NOAA was asked to provide scientific support for the salvage efforts to refloat the vessel.

NOAA advised that normal tides and currents would neither especially hinder nor help salvage operations. However, forecasted northeast wind conditions could set up an offshore wave which would increase the tidal height by three to four inches. NOAA further advised that the tidal height would increase daily until December 10, with the highest tide of the day running between 0245 and 0900. A viable strategy would be to commence offloading, and attempt to refloat the vessel toward the end of December.

FINAL DISPOSITION OF THE INCIDENT

The Docelotus was refloated after several unsuccessful attempts at 0500 on December 27. Ballast tanks, which contained over 2.5 million gallons, had been pumped out. Four tugs assisted during the refloating operation. No pollution resulted from the incident. The case was closed on December 27, 1986.

BIBLIOGRAPHY

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NOAA Response Report

Colonial Oil Tank Farm
Morehead City, North Carolina
January 16, 1987

Ann Hayward Walker, Scientific Support Coordinator

INCIDENT SUMMARY

On January 16, 1987, a bulkhead on property leased to Colonial Oil Company collapsed, causing the bank to cave into the Morehead City Channel at a rate of 10 feet per hour. Three storage tanks containing a total of 2,394,000 gallons of #2 and #6 oil were located within fifty feet of the bulkhead. Responding agencies were concerned that the tanks would be undermined by the rapidly eroding bank and that the tanks could not be emptied in time to prevent a release.

NOAA RESPONSE

NOAA/OAD was notified of the incident at approximately 1200 on January 16,1987, by the U.S. Coast Guard Marine Safety Office in Wilmington, North Carolina, and requested to provide a trajectory projection and an assessment of resources at risk should one or more tanks be undermined and a release occur.

NOAA advised the Coast Guard that the area in the immediate vicinity of the tank farm is extremely sensitive. Wildlife refuges, extensive tidal marshes, endangered birds and reptiles, and significant waterfowl populations are within a 5 mile radius of the incident. Because of the close proximity of the tank farm to these sensitive environments, even a small release would landfall within 1 to 2 hours; for example, a fifty gallon release of #6 oil would cause major impact within a mile of the tank farm. However, if oil were released on an ebbing tide the consequences would be less severe due to strong outgoing tidal currents. Boom could be placed at a railroad bridge to prevent the oil entering the Newport River.

Because of the potential severity of the incident, NOAA initiated communications and coordination with Federal and State resource management agencies, including the National Marine Fisheries Service laboratory in Beaufort, North Carolina; the NOAA Rachel Carson National Estuarine Sanctuary; the U.S. Department of the Interior; and the North Carolina Department of Natural Resources and Community Management.

FINAL DISPOSITION OF THE INCIDENT

The tank closest to the bank was undercut by 10 feet before the shoreline stabilized itself at about 1430. Because this tank still contained 50,000 gallons of #2 oil, responders were concerned that the shoreline would destabilize from boat wakes or if the weather deteriorated.

The Army Corps of Engineers, U.S. Navy Supervisor of Salvage, U.S. Coast Guard Atlantic Strike Team, and North Carolina Port Authority identiffied and implement erosion countermeasures. The Governor of North Carolina ultimately diverted Department of Highway trucks from other jobs, ordered them to carry in loads of stone from New Bern and waived the loading restrictions to allow the trucks to be fully loaded. In the meantime, a 1,000,000-gallon capacity barge was located as a receptacle for the remaining oil.

BIBLIOGRAPHY

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NOAA Response Report

Tug Barbara R. MacAllister
Morehead City, North Carolina
January 24, 1987

Ann Hayward Walker, Scientific Support Coordinator

INCIDENT SUMMARY

The tug Barbara R. MacAllister had a derrick barge containing approximately 36,000 gallons of oil in tow when the barge broke its tow line. The tug had resecured the barge when the tug unexpectedly sank in 41 feet of water in the anchorage two miles off the entrance of the Beaufort Inlet. The barge ran aground nearby. Some sheen was visible at the time of the sinking.

NOAA RESPONSE

NOAA/OAD was notified of the incident on January 24, 1987, by the U.S. Coast Guard Marine Safety Office (MSO) in Wilmington, North Carolina, and requested to provide a trajectory analysis and an assessment of resources at risk.

NOAA advised the Coast Guard that a release from a sunken vessel would probably create an intermittent release, generating a sheen measuring about 200 yards long which would gradually dissipate with the prevailing wind conditions. No resources would be at risk and only a very mild shoreline impact would be expected given the trajectory report and the location of the vessel.

NOAA also advised that the period between March 6 through March 12 would have especially weak tides, a good time for salvage operations. NOAA participated in a conference call to evaluate and comment on the salvor's plans, and recommended conducting salvage operations on ebbing tides and during southeast winds (which would move any released oil away from shore).

FINAL DISPOSITION OF THE INCIDENT

The Barbara R. MacAllister was raised on March 14, and towed to Morehead City for repairs. Although the cause of the sinking is still under investigation, preliminary findings indicate flooding through deck doors inadvertently left open. An estimated 1,000 gallons of fuel was lost during the incident.

BIBLIOGRAPHY

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NOAA Response Report

Dredge Atchafalaya
Chicoteague Inlet, Virginia
February 18, 1987

Ann Hayward Walker, Scientific Support Coordinator

INCIDENT SUMMARY

On February 17, 1987 the U.S. Coast Guard Marine Safety Office (MSO) was notified that the dredge Atchafalaya, carrying 15,000 gallons of diesel fuel, was sinking near buoy #4 in Chincoteague Inlet. The vessel apparently had holed its hull and, as a result, had approximately six feet of water in the engine room and was bouncing off the bottom. The weather was deteriorating with six-foot swells and all but essential personnel were removed from the vessel.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 0900 on February 18, 1987, by the Coast Guard MSO, Hampton Roads, and requested to provide a trajectory forecast and resources at risk in the event of a release.

NOAA advised the MSO that the combination of prevailing weather conditions and tidal currents in the area would take the majority of any released oil out the mouth of the inlet. Some minor spattering of oil, in the form of a "bathtub ring," could be likely along the shoreline. Because diesel fuel would disperse rapidly under the forecasted weather conditions and tidal currents would move spilled oil away from shore, a spill would not present a threat to the environment.

FINAL DISPOSITION OF THE INCIDENT

The dredge was refloated by two tugs on Febrary 20, after transferring 7,700 gallons of diesel from the port to starboard tanks to offset the weight of sand which had entered the engine room. No pollution was reported. The case was closed on February 22, after the Atchafalaya was moved to the Norfolk Ship Company for repairs.

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NOAA Response Report

Barge Pampa
Atlantic Ocean Off North Carolina
February 25, 1987

Ann Hayward Walker, Scientific Support Coordinator

INCIDENT SUMMARY

The barge Pampa broke loose from its tow 15 miles northeast of Hatteras Inlet during deteriorating weather with 8-10 foot seas. The barge carried 500 tons of carbon tetrachloride in eight pressurized tanks.

NOAA RESPONSE

NOAA/OAD was notified of the incident on February 25, 1987, by the advised the U.S. Coast Guard Marine Safety Office, Wilmington, North Carolina, and requested to advise on the toxicity of carbon tetrachloride.

NOAA advised that the threat to marine life from a release would be inconsequential. Although chemical data indicated that carbon tetrachloride is slightly toxic to marine life, a partial release of cargo into the 600-foot deep waters off Hatteras Inlet would be rapidly diluted to below harmful concentrations.

FINAL DISPOSITION OF THE INCIDENT

On February 27, the Pampa was taken back to Hatteras Inlet under tow with no release to the marine environment.

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NOAA Response Report

M/V San Juan
Atlantic Ocean Off Virginia
March 16, 1987

Ann Hayward Walker, Scientific Support Coordinator

INCIDENT SUMMARY

The container vessel San Juan was transiting the Atlantic coast off Virginia in waters 200 feet deep when a bottom container collapsed, breaking the lashings on adjacent containers. The San Juan lost 11 containers over the side. Ten of the containers contained non-hazardous goods, such as household effects, food stuffs, tobacco, glass, and machine parts. One container held a variety of hazardous and non-hazardous substances, including 83 drums of flammable liquid cleaning compounds, resin solution, and synthetic resins. The skipper did not plan to retrieve the lost containers.

NOAA RESPONSE

NOAA/OAD was notified of the incident on March 16, 1987 by the U.S. Coast Guard Marine Safety Office (MSO), Hampton Roads, and requested to advise whether there would be any environmental threat associated with abandoning the containers.

NOAA advised the Coast Guard that the drums would slowly and gradually break down, releasing small amounts of their contents into the water. The contents as listed posed no significant threat to the marine environment; a release in small amounts into waters 200 feet deep would be rapidly diluted. NOAA informed the MSO that, from an environmental standpoint, there would be no need to retrieve the lost containers.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard was concerned with the shipper's intention to abandon the containers.

BIBLIOGRAPHY

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NOAA Response Report

Perdue, Inc.
Accomac, Virginia
March 19, 1987

Ann Hayward Walker, Scientific Support Coordinator

INCIDENT SUMMARY

A container of alum being unloaded to a storage container at Perdue, Inc. in Accomac, Virginia, was damaged, releasing approximately 2,000 gallons of alum (8.1970 solution) onto the ground. Although a substantial portion was contained, an undetermined quantity escaped into Parker Creek, which becomes tidal farther downstream.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1000 on March 19, 1987, by the U.S. Coast Guard Marine Safety Office (MSO), Hampton Roads, and requested to consider the effects of alum solution on marine life in Parker Creek.

NOAA advised the Coast Guard MSO that alum is aluminum sulfate, a coagulant used in water treatment. Aluminum sulfate is not a particularly toxic substance; its main adverse effect would be to lower pH in the creek for a few hours. Given the concentration of the solution, the worst case effect would be roughly equivalent to dumping four barrels of clay into the stream. Consequently, NOAA advised the Coast Guard that environmental consequences would be minimal and no remedial measures would be necessary.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard requested a report from Perdue on the spill and a survey of the creek by the company environmental manager. No damage was evident at the time of the survey.

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NOAA Response Report

Barge Repacid
Rappahannock River, Virginia
April 16, 1987

Ann Hayward Walker, Scientific Support Coordinator

INCIDENT SUMMARY

On April 16, 1987, a tugboat, towing the double-hulled barge Repacid which was loaded with 1,300 tons of sulfuric acid, grounded in the mud in the Rappahannock River after moving close to shore to shelter from deteriorating weather.

NOAA RESPONSE

NOAA/OAD was notified of the incident on April 16, 1987 by the U.S. Coast Guard Marine Safety Office (MSO), Hampton Roads, and asked to advise on the effects of sulfuric acid on the marine environment in the event of a release.

NOAA advised the Coast Guard that a catastrophic release, which appeared to be an unlikely event, could create a serious situation for marine resources in the immediate vicinity of the barge. Because sulfuric acid is such a strong acid and heavier than water (which would cause it to sink), stationary marine resources such as oysters, soft clams, and submerged aquotic vegetation (SAV) beds would be most at risk.

NOAA estimated that a catastrophic release of all 1,300 tons would threaten approximately 4 kilometers of the river, stretching from the shoal where the barge grounded to the mouth. A major release would dilute to lower than toxic levels in a few day, depending on the rate of release and weather conditions. It would be a short-term, localized problem.

FINAL DISPOSITION OF THE INCIDENT

The Repacid was refloated on April 17 with no loss of cargo.

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NOAA Reponse Report

Mystery Spill
Rudee Inlet, Virginia Beach, Virginia
May 26, 1987

Ann Hayward Walker, Scientific Support Coordinator

INCIDENT SUMMARY

On May 21, 1987, the U.S. Coast Guard Marine Safety Office (MSO), Hampton Roads, received reports that a foamy substance, which resembled soap suds, had been found in a 3/4-mile long strip off Rudee Inlet in Virginia Beach.

NOAA RESPONSE

NOAA/OAD was notified of the incident on May 26, 1987 by the Coast Guard MSO, Hampton Roads, and asked to help determine the nature and source of the substance.

NOAA informed the Coast Guard that the substance was likely to be dissolved organics which had created foam and banked up in front lines. Studies by the U.S. Navy have shown that foam tends to form readily in the ocean from trace amounts of surfactants. An offshore plankton bloom, in combination with certain oceanographic and weather conditions, could produce a suitable amount of surfactant to create foam.

FINAL DISPOSITION OF THE INCIDENT

A sample of the foamy substance was taken and analyzed by the Virginia State Water Control Board, and determined to be material from an algal bloom.

NOAA Response Report

Barge Governor Hendricks
Norfolk, Virginia
June 5, 1987

Ann Hayward Walker, Scientific Support Coordinator

INCIDENT SUMMARY

On May 30, 1987, the barge Governor Hendricks, containing an estimated 300 gallons of a heavy black, bunker C-like oil, was taken to the NORSHIPCO shipyard to assess whether it could be made seaworthy for trade. While in drydock, temporary measures were taken to plug some of the more prominent deck holes. When refloated, the barge sank in drydock in about 30 feet of water.

The vessel began leaking and was boomed. A considerable portion of the boomed product escaped downstream in the eastern branch of the Elizabeth River, and the adjacent shoreline became oiled.

NOAA RESPONSE

NOAA/OAD was notified of the incident on June 5, 1987 by the U.S. Coast Guard Marine Safety Office (MSO), Hampton Roads, and requested to provide information on resources at risk in the river and cleaning strategies for the oiled shoreline.

NOAA informed the Coast Guard that there were no significant biological resources at risk because of the highly industrialized nature of the area. The oiled shoreline consisted of primarily riprap and marshes. The Coast Guard informed NOAA that the State of Virginia had indicated they would be satisfied with the cleanup strategies proposed by the contractor.

NOAA contacted the contractor, who intended to use oil snare in the riprap, and booms and sorbent pads on floatable oil. The contractor also intended to cut oiled vegetation at low tide. NOAA concurred with contractor strategies for the riprap and floating oil, but advised the Coast Guard that the oiled vegetation should be left alone. Additionally, cleanup personnel should avoid trampling oil into the marshes.

On October 8, 1987, the Coast Guard again contacted NOAA/OAD, requesting additional information on the incident. The original estimate of oil was incorrect. Approximately 3,500 gallons of oil had been recovered and the Coast Guard believed that another 500 gallons remained inside the barge. Because of the extensive holing in the deck, plugging all the leaks has not proved to be feasible.

The Coast Guard estimated that the barge was likely to continue to leak at a rate of approximately 1 gallon per day, creating a sheen and costing about $300 per week to clean up. The Coast Guard queried NOAA whether cleanup efforts could be terminated based on the premise that additional cleanup would be excessively costly and make an insignificant contribution to minimizing a threat to the environment.

NOAA prepared a report for the Coast Guard On-Scene Coordinator citing precedents where decisions had been made to terminate cleanup efforts and permit minor continued sheening. These

cases included 1) extensive, heavily oiled marsh areas, where continued sheening from tidal flushing had been left alone, and 2) sunken vessels, such as the T/V Puerto Rican, where its cargo of bunker fuel caused minor surface sheens for an extended period. The report was transmitted to the Coast Guard MSO via electronic mail on October 9, 1987.

FINAL DISPOSITION OF THE INCIDENT

The Governor Hendricks still rests on the bottom of the NORSHIPCO drydock in 30 feet of water. The shipyard and barge owners are in disagreement over responsibility for the sinking. Consequently neither party will act to remedy the situation. In the absence of an obvious responsible party, the Coast Guard has used 311k funds for the cleanup.

Based on the NOAA report, the Coast Guard terminated cleanup on October 9, 1987.

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NOAA Response Report

C.E. Thurston Warehouse
Norfolk, Virginia
June 15, 1987

Ann Hayward Walker, Scientific Support Coordinator

INCIDENT SUMMARY

At about 0230 on June 15, 1987, fire broke out at the C. E. Thurston Warehouse, containing approximately 275 tons of baled crude rubber, in Norfolk. The warehouse. The fire department and state officials responded. The U.S. Coast Guard Marine Safety Office (MSO), Hampton Roads, monitored the situation and was concerned about the runoff from the fire fighting. The runoff went into a storm drain which emptied from an outfall 3/4 mile away into the eastern branch of the Elizabeth River.

NOAA RESPONSE

NOAA/OAD was notified of the incident at approximately 0830 on June 15, 1987 by the Coast Guard MSO, Hampton Roads, and asked to advise on cleaning strategies and the effects of the runoff on the Elizabeth River.

NOAA contacted the U.S. Environmental Protection Agency Environmental Response Team, who has a great deal of tire fire experience, and advise the Coast Guard that, when the rubber melted, oils would form in the runoff. Because crude rubber, rather than tires, was burning, many of the harmful components of tire fires would not be associated with this fire. The runoff, therefore, would not need hazardous waste treatment.

However, the Coast Guard was advised to contain and recover the oily runoff and prevent it from entering the storm drain. A dike or sausage boom could be used to contain the oil. The Coast Guard reported to NOAA that attempts to prevent the runoff from entering the storm drain were partially successful; some material entered the river, causing a sheen for a couple of days.

NOAA advised that, because the river is already heavily impacted by the industrial development along the shoreline, and the short-term sheen from the runoff posed no significant environmental threat.

FINAL DISPOSITION OF THE INCIDENT

The fire was extinguished by 1200 on June 16, 1987. The contractor recovered approximately 75 tons of oily residue by containing it in the parking lot adjacent to the warehouse. Cleanup efforts were terminated on June 17.

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NOAA Response Report

Tug William L. Coleman
Chesapeake Bay Entrance, Virginia
June 23, 1987

Ann Hayward Walker, Scientific Support Coordinator

INCIDENT SUMMARY

The tug William L. Coleman ran aground at the entrance of the Chesapeake Bay Bridge Tunnel in the early morning hours of June 23, 1987. When the tug came off the bottom, the crew was concerned that the #2 center fuel tank (capacity 2,500 gallons) might have been holed. The tug anchored nearby to inspect the damage before proceeding to a shipyard for repairs. No waterborne oil was observed around the vessel.

NOAA RESPONSE

NOAA/OAD was notified of the incident on June 23, 1987, by the U.S. Coast Guard Marine Safety Office (MSO), Hampton Roads, and asked to provide a trajectory analysis in the event a release occurred while moving the vessel to the shipyard. The Coast Guard also requested an analysis of physical conditions which might influence movement of the vessel.

NOAA informed the MSO that the south-southwesterly wind conditions on June 23 would tend to move any released oil out to sea. The forecasted winds for the following day, however, called for a reverse in direction, to the north-northeast. NOAA advised the Coast Guard that the vessel should be moved on an ebbing tide while the winds were south-southwest. If a release occurred at that time, a slick measuring 1/4 - 1/2 mile in length would move out about 3 - 4 miles on that tidal cycle.

FINAL DISPOSITION OF THE INCIDENT

Divers discoved that the hull had been badly dented, but not holed, during the grounding. The vessel was moved without further incident to the shipyard for repairs. The case was closed on June 23, 1987.

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NOAA Response Report

Barge Ocean Transporter
Cape Fear River, North Carolina
July 17, 1987

Ann Hayward Walker, Scientific Support Coordinator

INCIDENT SUMMARY

At about 0100 on July 17, 1987, the barge Ocean Transporter grounded near buoy 13 in the Cape Fear River. The double-bottomed barge, which contained 700,000 gallons of 50% solution of caustic soda, was reportedly hard aground on a muddy bottom.

NOAA RESPONSE

NOAA/OAD was notified of the incident at about 1300 on July 17, 1987, by the U.S. Coast Guard Marine Safety Office (MSO), Wilmington, North Carolina, and asked to provide information on the physical properties of caustic soda. NOAA transmitted a chemical data sheet on caustic soda's properties to the MSO via electronic mail.

FINAL DISPOSITION OF THE INCIDENT

The Ocean Transporter was refloated on the high tide at 1416 on July 17, 1987 with no apparent damage to the vessel and no release of cargo.

BIBLIOGRAPHY

Harris, Lori, et al. In press. The CAMEO Manual. Seattle: Ocean Assessments Division, National Oceanic and Atmospheric Administration.

NOAA Response Report

Huntsman Chemical Company
Chesapeake, Virginia
August 3, 1987

Ann Hayward Walker, Scientific Support Coordinator

INCIDENT SUMMARY

On August 3, 1987, Huntsman Chemical Company pumped into a diked area the contents of a tank containing styrene, xylene, and ethyl benzene to prevent a dangerous situation when the styrene began to polymerize. The National Response Center was notified of the intentional release.

NOAA RESPONSE

NOAA/OAD was notified of the incident on August 3, 1987 by the U.S. Coast Guard Marine Safety Office (MSO), Hampton Roads, and asked to provide information on chemical hazards and determine whether the release posed a vapor problem.

NOAA advised the Coast Guard that a 200-yard threat zone should be maintained downwind of the spill. NOAA concurred with Huntsman Chemical in their handling of the polymerizing substance.

FINAL DISPOSITION OF THE INCIDENT

Huntsman Chemical Company was successful in preventing the complete polymerization of the styrene. The material was pumped back into the tank without further incident.

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NOAA Response Report

Tetrachloroethylene Spill
Norfolk, Virginia
August 31, 1987

Ann Hayward Walker, Scientific Support Coordinator

INCIDENT SUMMARY

On August 31, 1987, the U.S. Coast Guard Marine Safety Office (MSO), Hampton Roads, Virginia, received a complaint of a 5-10 gallon spill of tetrachloroethylene near a small drycleaning firm.

NOAA RESPONSE

NOAA/OAD was notified of the incident on August 31, 1987 by the Coast Guard MSO, and asked to run the Computer-Aided Management of Emergency Operations (CAMEO) program for information on tetrachloroethylene. NOAA forwarded the information to the Coast Guard MSO.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard learned that the spilled substance was actually VARSOL, a petroleum-based cleaning solvent. The Virginia State Water Control Board took over the case.

BIBLIOGRAPHY

Harris, Lori, et al. In press. The CAMEO Manual. Seattle: Ocean Assessments Division, National Oceanic and Atmospheric Administration.

NOAA Response Report

U.S. Air Force F-106
October 14, 1986
Key Largo, Florida

David Kruth, Scientific Support Coordinator

INCIDENT SUMMARY

On October 14, 1986, the U.S. Coast Guard Marine Safety Office (MSO) in Miami was notified by the U.S. Air Force Base in Homestead, Florida that an Air Force F-106 fighter plane had crashed and was leaking JP-4 jet fuel. The plane crashed into a shallow mangrove area near Rattlesnake Key after the pilot had ejected. The Air Force estimated that, in addition to hydraulic fluid, there was 200-300 gallons of fuel on board at the time of the accident.

NOAA RESPONSE

NOAA/OAD was notified of the incident on October 14, 1986, by the Coast Guard MSO, Miami, and requested to provide information on the composition of the jet fuel and possible environmental impacts.

NOAA advised that JP-4 is composed of approximately 65% gas and 35% light distillates. NOAA estimated that all of the jet fuel would evaporate in the first 10 hours. Any fuel which dissolved in the water column would have a local, short-term toxic effect on the marine life. It was estimated that all jet fuel would be flushed out of the area in one to two tidal cycles.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard supervised the cleanup actions of the Air Force, who provided sorbent boom to absorb any leaking fuel. On October 21, the Air Force used a large helicopter to lift the wrecked F-106. NOAA provided tidal prediction data; because of the helicopter's limited lifting capacity, it was important to lift the wreck at low tide since any additional water inside of the aircraft would exceed the lifting capacity of the helicopter. Environmental damage appeared to be limited to the physical damage to the mangroves and bay bottom from the initial impact of the plane. NOAA was on-scene during the removal action.

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NOAA Response Report

T/B Maria Teresa
October 19, 1986
Jupiter, Florida

David Kruth, Scientific Support Coordinator

INCIDENT SUMMARY

On October 19, 1986, the U.S. Coast Guard Marine Safety Office (MSO) in Miami was notified by the captain of the tugboat Katrina that is tow had broken free. The tug's towline broke in heavy sea and wind conditions, setting the tank barge Maria Teresa adrift. The 300-foot, doubled-bottomed barge had 6,000 gallons of diesel fuel and an unknown amount of fermentation solubles on board.

NOAA RESPONSE

NOAA/OAD was notified of the incident on October 19, 1986, by the Coast Guard MSO, Miami, and requested to provide information on the nature of fermentation solubles and their potential environmental impact.

NOAA identified fermentation solubles as the left-over fermented grain used in the production of beer and other alcoholic products. Fermentation solubles are then used as cattle feed. The Coast Guard was further advised that any spillage of the fermentation solubles and diesel fuel would have minimal impact since they would dissipate quickly under the present extreme weather conditions.

FINAL DISPOSITION OF THE INCIDENT

The barge drifted ashore and grounded on a sand bottom about 1.5 nautical miles north of Jupiter Inlet. The barge was eventually removed from the shore when the weather subsided. No spillage of either the diesel fuel or fermentation solubles occurred.

BIBLIOGRAPHY

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Research Planning Institute. 1984. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: South Florida. An Atlas of Coastal Resources. Tallahassee: Florida State Department of Veteran and Community Affairs.

NOAA Response Report

C/V Nedlloyd Hollandia
Ponce, Puerto Rico
October 28, 1986

David Kruth, Scientific Support Coordinator

INCIDENT SUMMARY

On October 27, 1986, the 620-foot long container ship, Nedlloyd Hollandia, ran aground in 29 feet of water one mile south of Ponce, Puerto Rico, its intended port. The ship carried 11,000 barrels of bunker fuel on board. No leakage of bunker fuel occurred during the grounding.

NOAA RESPONSE

NOAA/OAD was notified of the incident on October 28, 1986, by the U.S. Coast Guard Marine Safety Office, San Juan, Puerto Rico, and requested to provide an oil spill trajectory, information concerning resources at risk, containment strategies, and dispersant use recommendations.

NOAA's trajectory analysis, provided in the event the ship began leaking, indicated that, under the present weather conditons, the oil would drift in a westerly direction if released during during the night. If oil was released during the day, the oil slick would be expected to drift in a west-northwest direction as a result of the daytime shift of winds, with the first area of impact probably Point Guayanilla.

NOAA recommended that the first priority protection strategy would be the placement of oil containment booms around the vessel. Second, boom should be placed at the entrance of Bahia de Guanica to protect this bay. Much of the shoreline contains very sensitive mangrove areas, with turtle nesting occurring on several small beaches along the southern coast. There are also a number of resident and migrating seabirds, diving birds, and waterfowl in the area.

The Coast Guard was advised that chemical dispersants were not advisable because the vessel was in too shallow water and it was unknown if a slick would drift out to deeper water; the vessel was located in an area with many coral reefs; the oil might not be dispersible; and the volume of oil that could be released under a reasonable scenario probably did not warrant the use of dispersants.

NOAA further provided daily weather forecasts and information for planning the removal operation. Tidal height predictions were also provided for the Ponce area so that tug boats could attempt to free the Nedlloyd Hollandia at exactly high tide.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard staged approximately 1,500 feet of oil containment boom at the Port of Ponce in case a release of oil did occur. Furthermore, they made arrangements to have the Coast guard Gulf Strike Team's open water oil containment and recovery system brought on-scene.

The owners made several unsuccessful attempts to free the vessel using tug boats. The decision was made to offload 100-150 shipping containers using a barge. It was believed that,

with the reduction of cargo, the ship might float free. On October 30, after 51 containers had been removed from the vessel, the ship began to move. With the assistance of a tug, the vessel was pulled free. Divers inspected the hull of the vessel and found virtually no damage. No oil was released during the incident.

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NOAA Response Report

T/V Amazon Venture
Garden City, Georgia
December 8, 1986

David Kruth, Scientific Support Coordinator

INCIDENT SUMMARY

Late on December 4, 1986, the U.S. Coast Guard Marine Safety Office (MSO) in Savannah was notified of an estimated 2,000 gallons of black oil floating in the Savannah River at the container berths in Garden City, Georgia. The Coast Guard MSO searched the ships and facilities to identify the source of the oil.

The primary suspect vessel was the T/V Amazon Venture, since she had slid away from the pier earlier in the day and grounded temporarily. The ship carried approximately 240,000 barrels of various types of oil. It was believed that the ship suffered damage to the hull during the grounding. Tugs were successful in pushing the ship back along the pier. Oil samples were taken from the vessel along with samples from the river and sent to the South Carolina Department of Health and Environmental Control (SCDHEC) for analysis. Divers inspected the ship's hull but were unable to find any signs of visible damage.

On December 6, SCDHEC labs matched the oil in the river to the No. 6 heating oil carried on the Amazon Venture. Later, a diver observed oil coming out of the ship's port sea chest. The amount of spilled oil in the river was estimated to be 50,000 gallons on December 7, at which time the owners of the Amazon Venture agreed to fund the cleanup response. By December 8, it had been determined that the vessel was leaking oil due to a valve failure in the cargo/ballast piping system because oil appeared to leak from the system only during the transfer of cargo. This section of the piping system was eventually blanked off to prevent any further leakage of oil.

NOAA RESPONSE

NOAA/OAD was notified of the incident on the morning of December 8, 1986, by the Coast Guard MSO, Savannah, and requested to report on-scene to address the environmental concerns and work with the resource agencies involved.

The NOAA staff worked closely with the agencies responding to the spill on a daily basis. These agencies included Georgia Department of Natural Resources (GADNR), Georgia Environmental Protection Division (GAEPD), U.S. Fish and Wildlife Service (USFWS), South Carolina Department of Fish and Game (SCFG), SCDHEC, Army Corps of Engineers (ACOE), U.S. Food and Drug Administration (USFDA), the Georgia Nature Conservancy, and the U.S. Environmental Protection Agency. All agencies actively shared information, concerns and recommendations at these meetings.

NOAA advised the Coast Guard that the two areas of greatest environmental concern were the Savannah National Wildlife Refuge (SNVR) to the north and the Wassau Sound area to the south. Wassau Sound is an area with extensive recreational and commercial shellfisheries. Oil booms were placed at many locations in both of these areas in an attempt to minimize the amount of oil entering. Strong currents caused breakage of booms and entrainment of oil under the booms.

The greatest protection to these areas was actually provided by concentrating efforts in trapping the oil along the Front River (the source) and removing it there.

The Coast Guard On-Scene Coordinator (OSC) and resource agencies agreed on December 9 to request the ACOE to open the tidal gates along the Back River. Normally, these tidal gates are open only during a flood tide. When the gates are closed during ebb tide, the water is diverted into the Front River, creating a much stronger current. This stronger current helps remove sediment from the river, minimizing the amount of dredging needed to keep the river open to ship traffic. Once the gates remained open, reduced currents were observed along the Front River, thereby making it easier to collect and remove oil there.

Another concern was for the water intakes located in Abercorn Creek, approximately 5 miles upriver from the spill site. The area was closely monitored by NOAA personnel on daily overflights. Boom was staged in the area as a precaution, but no oil was observed entering Abercorn Creek.

NOAA's preliminary environmental assessment indicated that most of the oiled marshes along the relatively high energy shoreline would recover in about one year. Marshes with heavy black oil along the main river channels would recover due to the natural removal of the oil during ship wake wash and tidal current flushing. This conclusion is based on observations made at several spills in riverine settings (a No. 6 fuel oil spill on the Cape Fear River in May 1982, and two crude oil spills along the Delaware River in 1985 and 1986). Oil contamination of the more sheltered marshes in the wildlife refuge was expected to take longer, although weather and biodegradation would eventually remove the oil. Less impact to the marsh grasses is expected than if the spill had occurred in the summer months since marsh grasses are in a less vulnerable, dormant growth stage during the winter months. The marsh grass is expected to slough off this oiled outer growth during the spring growing season.

Field measurements were taken to estimate the amount of marsh area oiled in the Savannah National Wildlife Refuge. The results indicated 38 acres of heavily oiled marshes on major water ways; 80 acres of lightly oiled marshes on major waterways and 610 acres of oiled marshes along canals and tributaries. NOAA's Office of Aircraft Operations performed an infrared photography overflight of the area to help Georgia and South Carolina state agencies and USFWS to further assess the impact of the oil.

NOAA advised the OSC that the oil was not likely to sink under the present circumstances. River bottom samples taken later by GADNR and ACOE found no evidence of sinking oil. Oil lost due to evaporation was expected to be in the 20-30% range over the first four days. NOAA ran a gas chromotograph/mass spectral (GCMS) analysis on a sample to further characterize the oil. Chemists concluded that the oil was a highly refined product and would become more sticky than most oils as it weathered. This characteristic indicated that, once the oil adhered to the shoreline, it would be unlikely to float free again. It was expected to take 3-6 months for the oil to become hard due to weathering processes. Once the oil had fully weathered, the material would be inert and insoluble.

NOAA recommended that oiled vegetation not be cut during cleanup because such activities usually cause damage as the oil is ground into the sediment by cleanup workers. NOAA suggested that cleanup be restricted to the removal of free oil.

The spill appeared to have a minimal effect on birds. USFWS sighted approximately 3-4 dozen oiled birds, mostly anihigas and cormorants, and expressed concern that the bald eagles in the area might prey on oiled birds. USFWS feared the eagles themselves would become oiled after

catching an oily bird. A bird cleaning station set up by USFWS treated only a few birds. The ducks living in the impoundments in the Refuge were not threatened.

FINAL DISPOSITION OF THE INCIDENT

On December 11, sounding of all the ship's tanks was completed and the shoreside facility reported the amount of oil received. Calculations revealed a discrepancy of 500,000 gallons between what the vessel had carried before the spill occurred and the amount of oil remaining on board. Approximately 200,000 gallons of oil and oil/water mixture were recovered. Of this, 75,000 gallons of water were reported to have been decanted, leaving 125,000 gallons of oil being recovered.

Long-term cleanup recommendations were developed by NOAA, the Coast Guard Gulf Strike Team, and the Coast Guard MSO. The cleanup recommendations were derived from a boat survey in which the river was divided up into 64 possible cleanup sites. Each site was examined by the group, noting the description of the structures and the amount of oiling present. A list of possible cleanup techniques for each site was developed. Ultimately, one of these techniques was recommended by the group for each site. The MSO then presented these findings to the local environmental, govermental, and resource agencies for their input and review.

These recommendations advised allowing the oil to weather, biodegrade, and be removed by natural processes in the marsh area and river shoreline areas. For socio-economic reasons, the group recommended that further cleaning be performed in the historic area lining the river. Methods recommended were scraping, pressure flushing, debris removal, and sorbents.

The Regional Response Team approved the cleanup recommendations on January 22,1987; the owner's representative subsequently agreed to implement the suggestions. Final cleanup is expected to be completed by April 1987.

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NOAA Response Report

M/V Fern Passat
Mayport, Florida
February 27, 1987

David J. Kruth, Scientific Support Coordinator

INCIDENT SUMMARY

At 2020 on February 26, 1987, the U.S. Coast Guard Marine Safety Office (MSO) in Jacksonville was notified by the Jacksonville Pilot's station that the Fern Passat, carrying approximately 325,000 gallons of an intermediate fuel oil, had run aground on the south jetty at the entrance to the St. Johns River, and immediately begun losing oil. Early reports from the ship's master indicated that currents and wind had pushed the 510-foot car-carrier into the jetty. Tugs pulled the Fern Passat off the jetty before midnight.

The Coast Guard On-Scene Coordinator (OSC) ordered the vessel to anchor outside of the sea buoy to minimize the effect of oil onshore, given the forecasted strong easterly winds. The ship was ordered in subsequent days to anchor 34 and 54 miles offshore to further minimize the chances of more oil coming ashore. This placed the ship in the Gulf Stream current which would carry the oil north.

NOAA RESPONSE

NOAA/OAD was notified of the incident on February 27, 1987, by the Coast Guard MSO, Miami, and requested to provide technical assistance on-scene, identify resources at risk in the vicinity, and provide an oil spill trajectory for the slick.

Fortunately, the spill occurred on an ebb spring tide, which carried the oil out the mouth of the St. Johns River, resulting in virtually no shoreline impact inside the river. The NOAA spill trajectory indicated that most of the oil would come ashore at Atlantic, Neptune, and Jacksonville Beaches. These beaches are composed of fine-grained sand and are not sensitive to oil at this time of year. Oil on the shore could be found as far south as St. Augustine Inlet. Oil booms were placed inside the St. Augustine Inlet to protect the oyster beds there.

NOAA arrived on scene on February 27, and identified extensive salt marshes in the St. Johns River as being highly sensitive. The main threat appeared to be to marine birds and manatees; the mouth of the river is an overwintering area for a large bird population.

NOAA worked closely with all state, Federal, and local agencies in prioritizing resources at risk and cleanup techniques. NOAA flew several overflights with Coast Guard personnel to look for oil up to 50 miles offshore, using a Coast Guard Falcon equipped with side-looking radar, and ultraviolet and infrared scanners. No oil slicks were found, except for the small amount still leaking from the ship. NOAA personnel also assisted with extensive surface shoreline surveys of the affected beaches to study thickness, depth below the sand, and location of oil which had come ashore. Mostly, oil was found in bands at the high wash line (20 foot width) from the surface to a buried depth of eleven inches.

The Fern Passat was moved to within 15 miles of shore where repairs could be made, after NOAA advised the OSC that, under the present wind and sea conditions, none of the diesel would be expected to reach the shore.

NOAA recommended that techniques be used to minimize the amount of sand being removed when cleaning oil off the beaches. This shoreline had recently under gone beach renourishment and sand is a precious commodity. Also, the disposal of oil-contaminated sand was a major problem since it would have to be trucked to a disposal facility in South Carolina at great exspense.

Specifically, NOAA recommended that surf washing of oiled sand be considered; the scouring action of sand particles would remove most of the oil without removing the sand from the beaches. Oil would be thoroughly broken up and mixed, which would allow the natural biodegradation processes to proceed at a much faster rate. At this time of the year, the beach was at a very low stage of biological productivity. A small release of oil now would be preferable to having oil seep out of the beach later in the spring when biological productivity would be much higher. The removal of sand from the beaches would be drastically reduced and less sand would have to be disposed of in a hazardous waste landfill.

After discussion by all responding agencies, this "surf washing" technique was tested. A 100-foot section of the beach would be tested by pushing the oily sand down into the intertidal area were it would be washed by the tides. The experiment was monitored by several agencies for 24 hours (two tidal cycles). The surf washing technique was considered a success.

FINAL DISPOSITION OF THE INCIDENT

An estimated 86,000 gallons of intermediate fuel oil and 22,000 gallons of diesel fuel was spilled by the Fern Passat. The State of Florida cleaned the beach using three methods. First, all areas of extremely heavily contaminated sand would be scraped up and disposed of into an approved landfill. Second, areas of moderately oiled areas would be "surf washed." Last, lightly oiled sand areas would be left to weather naturally.

Divers inspected the damage to the ship's hull and found a 2-foot wide gash in the #3 tank, a 1-foot wide gash in the port water ballast tank, a 7-foot by 1.5-foot gash in the #4 fuel tank, and a 3-foot by 4-foot granite boulder imbedded in the hull. Temporary repairs were made at sea.

Before the OSC allowed the ship to enter the St. Johns River for further repair in a drydock, booms were staged and deployed at environmentally sensitive areas along the way, in the event of an oil release. The ship was towed by several tugs and followed by a vessel equipped with boom and sorbent pads.

The drydock was prepared to contain an oil release in case the ship should release more oil while in it: special coffer dams were built and the drydock was surrounded with boom. These precautions allowed only about 500 gallons of oil to escape into the river when approximately 10,000 gallons of oil was released when the water level was lowered in the drydock. Cleanup of the drydock was accomplished with vacuum trucks, sorbent pads and laborers. Further repairs were made to the ship's hull while in dry dock. On April 8, the Fern Passat left Jacksonville under tow to a foreign port.

Several hundred birds, mainly gulls, loons, and pelicans, were cleaned at the bird cleaning station in Hanna Park.

BIBLIOGRAPHY

Galt, J. A. and D. L. Payton. 1981. Finite element routines for the analysis and simulation of nearshore circulation. Mechanics of Oil Slicks, Paris, France, pp. 121-132.

Research Planning Institute. 1984. The Sensitivity of Coastal Environments and Wildlife to Spilled Oil in South Florida. Tallahassee: The State of Florida Department of Veteran and Community Affairs.

Torgrimson, Gary M. 1984. The On-Scene-Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12. Seattle: Ocean Assessments Division, National Oceanic and Atmospheric Administration.

NOAA Response Report

M/V Vardaas
Key Biscayne, Florida
March 16, 1987

David Kruth, Scientific Support Coordinator

INCIDENT SUMMARY

A Civil Air Patrol aircraft observed the M/V Vardaas, ten miles offshore, discharging a substance overborad which was creating a sheen measuring approximately 15 miles long and 100 feet wide.

NOAA RESPONSE

NOAA/OAD was notified of the incident on March 16, 1987, by the U.S. Coast Guard Marine Safety Office, Miami, and requested to provide a spill trajectory and to estimate the amount of oil involved.

The NOAA trajectory indicated that the slick would break up before reaching shore, although some tarballs and oil globs could reach land. NOAA estimated that the slick contained approximately 300 gallons of oil.

FINAL DISPOSITION OF THE INCIDENT

The oil slick broke up before reaching shore.

BIBLIOGRAPHY

Torgrimson, Gary M. 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12. Seattle: Ocean Assessments Division.

NOAA Response Report

Mystery Oil Spill
Cape Canaveral, Florida
March 17, 1987

David Kruth, Scientific Support Coordinator

INCIDENT SUMMARY

A U.S. Navy helicopter spotted a heavy black oil slick approximately 2.5 miles off the coast of Patrick Air Force Base at Cape Canaveral, Florida. The slick measured approximately 500 feet by 1,000 feet. There were nov essels in the area when the slick was discovered.

NOAA RESPONSE

NOAA/OAD was notified of the incident on March 17, 1987, by the U.S. Coast Guard Marine Safety Detachment (MSD), Cape Canaveral, and requested to provide a spill trajectory and to estimatethe amount of oil involved.

NOAA's trajectory indicated that the slick should break up before reaching shore, although some tarballs and oil globs could possibly reach the shore between Cocoa Beach and Satellite Beach.

FINAL DISPOSITION OF THE INCIDENT

The oil slick broke up before reaching land.

BIBLIOGRAPHY

Torgrimson, Gary M. 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12. Seattle: Ocean Assessments Division.

NOAA Response Report

Carrol & Carrol, Inc.
Savannah, Georgia
March 26, 1987

David Kruth, Scientific Support Coordinator

INCIDENT SUMMARY

On March 26, 1987, the U.S. Coast Guad Marine Safety Office (MSO), Savannah, received a report of 500 to 1,000 gallons of heavy dark oil in the Savannah River. The oil appeared to be weathered, with no apparent source.

An employee of Southern Railroad later reported oil in a drainage ditch. The train crew walked the ditch bank from Dundee Canal to an apparent source on the property of Carrol & Carrol, Inc. A pool of black oily material had collected beneath an over-the-road tank trailer parked on the property. Black oil was traced via a drainage ditch to the Dundee Canal, which leads into the Savannah River.

NOAA RESPONSE

NOAA/OAD was notified of the incident on March 26, 1987, by the Coast Guard MSO, Savannah, and requested to report on-scene to help evaluate the situation and recommend cleanup techniques.

NOAA, the Coast Guard Gulf Strik Team,and State of Georgia officials inspected the Carrol & Carrol property, the drainage ditch, and the canal. NOAA recommended that the black oil in the drainage ditch be removed by hand. The floating oil in the small strams was removed using absorbent pads and booms. NOAA stressed that care should be taken not to drive oil into the sediment via foot traffic.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard had oil samples taken and analyzed from the river, canal, and spiller's property. Results indicated that the oil in the canal and drainage ditch originated from Carrol & Carrol, Inc. However, the oil in the Savannah River matched the oil spilled by the M/V Amazon Venture several months earlier. The oil in the canal and drainage ditches was removed. The State of Georgia began investigating Carrol & Carrol, Inc. to ensure that the company is complying with state regulations.

BIBLIOGRAPHY

Kruth, David. 1986. NOAA Response Report: M/V Amazon Venture. Oil and Hazardous Material Response Reports FY'87. Seattle: Ocean Assessments Division, National Oceanic and Atmospheric Administration.

Research Planning Institute. 1986. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Georgia. An Atlas of Coastal Resources. Seattle: Ocean Assessments Division, National Oceanic and Atmospheric Administration.

NOAA Response Report

Air International Hangar
April 1, 1987
St. Petersburg, Florida

David J. Kruth, Scientific Support Coordinator

INCIDENT SUMMARY

On March 30, 1987, approximately 100,000 gallons of water contaminated with phenol, methylene chloride, cadium, and chromium spilled at the Air International facility at the Tampa-St. Petersburg International Airport. A containment berm held only about 35,000 gallons of the spilled material. The spill occurred when five days of heavy rain overfilled the holding tank at the facility. The remaining untreated wastewater flowed by natural drainage to a nearby grass area.

NOAA RESPONSE

NOAA/OAD was notified of the incident on April 1, 1987, by the U.S. Coast Guard Marine Safety Office (MSO), Tampa, and requested to provide toxicological data on the materials contained in the solution.

NOAA transmitted physical and chemical properties on each of the spilled chemicals to the Coast Guard MSO. Specifically, NOAA indicated that most of the methylene chloride should have evaporated away due to its high vapor pressure. Phenol has a lower vapor pressure and is soluble in water, and could present a skin contact problem. The metals could be highly hazardous if in a dust form and inhaled. However, since the metals were most likely in a salt form and tied up in the sediment, they did not present a respiratory hazard. Since metals could get in the food chain and bioconcentrate, contaminated sediment should be removed.

FINAL DISPOSITION OF THE INCIDENT

Contaminated water contained inside of the berm was removed by a vacuum truck. Sediment samples were taken by the Florida Department of Environmental Regulation for analysis. The results from the analysis indicated that the reportable quantity values established in 40 CFR 117.3 had not been exceeded.

BIBLIOGRAPHY

Sherman, Robert, Louisiana State University Institute for Environmental Studies, Baton Rouge, personal communication, April 1, 1987.

Hazardline. 1985. Secaucus, New Jersey: Occupational Health Services, Inc.

NOAA Response Report

Mystery Oil Slick
Key West, Florida
May 12, 1987

David J. Kruth, Scientific Support Coordinator

INCIDENT SUMMARY

On May 12, 1987, the U.S. Coast Guard Marine Safety Office (MSO) in Miami received several reports from vessels and aircraft of an oil slick. The slick was described by U.S. Navy pilots as being in two large patches located 20 miles south of Key West.

NOAA RESPONSE

NOAA/OAD was notified of the inkcident on May 12, 1987, by the Coast Guard MSO, Miami, and requested to provide a trajectory estimate for the slick.

Due to the proximity of the slick to the Gulf Stream, NOAA predicted that most of the oil would remain in the Gulf Stream and dissipate. The slick was predicted to travel almost 40 miles in the next 24 hours. Some tarballs might wash ashore on Key Biscayne since, since the northern part of the Gulf Stream comes very close to the mainland.

FINAL DISPOSITION OF THE INCIDENT

The slick dissipated naturally in the Gulf Stream. There were no reports of oil or tarballs coming ashore. No injury to marine life was reported.

BIBLIOGRAPHY

Galt, J. A. and D. L. Payton. 1981. Finite element routines for the analysis and simulation of nearshore circulation. Mechanics of Oil Slicks. Paris, France, pp. 121-132.

Research Planning Institute. 1984. The Sensitivity of Coastal Environments and Wildlife to Spilled Oil in South Florida. An Atlas of Coastal Resources. Tallahassee: Florida State Department of Veteran and Community Affairs.

Torgrimson, Gary M. 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12. Seattle: Ocean Assessments Division.

NOAA Response Report

Eastern Seaboard Petroleum
Jacksonville, Florida
May 29, 1987

David J. Kruth, Scientific Support Coordinator

INCIDENT SUMMARY

At 2020 on May 20, 1987, the U.S. Coast Guard Marine Safety Office (MSO) in Jacksonville was notified of a spill of No. 6 fuel oil at the Eastern Seaboard Petroleum facility. The spill occurred when a tankerman overfilled a barge tank, spilling approximately 8,200 gallons of oil into the Trout and St. Johns Rivers. The oil impacted approximately 2 miles of sensitive marshgrass. Much of the oil came ashore in front of the U.S. Navy Fuel Depot and into a drainage ditch on the facility property.

NOAA RESPONSE

NOAA/OAD was notified of the incident on May 29, 1987, by the Coast Guard MSO, Jacksonville, and requested to report to the scene to help evaluate the situation and recommend cleanup techniques.

After arriving on-scene and inspecting the shoreline impact at low tide, the NOAA Scientific Support Coordinator recommended that the oil remaining in the marshgrass be allowed to weather and biodegrade naturally. NOAA strongly opposed any cutting or massive removal of oiled marshgrass; the use of heavy equipment would drive the oil down into the sediment substrate and prolong the natural recovery process. NOAA instead recommended that the rocky area in front of the Navy fuel Depot be pressure-flushed.

FINAL DISPOSITION OF THE INCIDENT

None of the oiled marshgrass was cut or removed with heavy equipment, and it was agreed that the preferred cleanup method would be to let the oil biodegrade naturally.

It was noted that care should be taken to prevent cleanup workers from stepping on the oil and burying it further into the sediment. All accessible oiled debris were to be removed from the shoreline. The cleanup contractor set up a series of containment-like screens to help catch tarballs coming out of the marsh grass on the falling tides. This method reportedly had some success. The rocky shoreline in front of the Navy Fuel Depot was pressure-flushed. The drainage ditch on the facility was also cleaned and scraped.

The cleanup was completed on June 15.

BIBLIOGRAPHY

Baca, Bart., et al. 1983. Cape Fear River oil spill (North Carolina): Determining oil quantity from marsh surface area. Proceedings of the 1983 Oil Spill Conference, San Antonio, Texas, pp. 419-422.

Lee, R.F., et al. 1981. Fate and effects of a heavy fuel oil spill on a Georgia salt marsh. Marine Environmental Research, pp. 125-143.

Research Planning Institute. 1984. Sensitivity of Coastal Environments and Wildlife to Spilled Oil in South Florida. An Atlas of Coastal Resources. Tallahassee: Florida State Department of Veteran and Community Affairs.

NOAA Response Report

Anhydrous Ammonia
Port of Miami
June 12, 1987

David J. Kruth, Scientific Support Coordinator

INCIDENT SUMMARY

On June 12, 1987, the U.S. Coast Guard Marine Safety Office (MSO) in Miami was notified of an ammonia odor in the Port of Miami. The odor was coming from a 7,000-gallon tank trailer that had visible signs of damage to ITS valve fittings and chassis.

NOAA RESPONSE

NOAA/OAD was notified of the incident on June 12, 1987, by the Coast Guard MSO, Miami, and requested to estimate the extent of the ammonia air plume. NOAA's air plume model, Areal Locations of Hazardous Atmospheres, indicated that a safety zone of 20-30 yards around the trailer would be adequate based on the conditions present.

A safety zone was place around the area in accordance with NOAA's recommendation. Although papers for the tank trailer indicated that it should be empty, the Miami Fire Department estimated that there were 60-100 gallons of product still remaining in the tank.

FINAL DISPOSITION OF THE INCIDENT

The tank was removed from the port, vented, cleaned, and repaired. There were no injuries.

BIBLIOGRAPHY

DeVaan, Tracy L. 1986. Areal Locations of Hazardous Atmospheres (ALOHA). An Air Dispersion Model for the Macintosh Computer. Seattle: Ocean Assessments Division, National Oceanic and Atmospheric Administration.

NOAA Response Report

Mystery Oil Slick
Key Largo, Florida
June 16, 1987

David J. Kruth, Scientific Support Coordinator

INCIDENT SUMMARY

On June 16, 1987, the U.S. Coast Guard Marine Safety Office (MSO) in Miami was notified of an oil slick near Molasses Reef in Key Largo. The slick was reported to measure 7.1 nautical miles long by 100 yards wide.

NOAA RESPONSE

NOAA/OAD was notified of the incident on June 16, 1987, by the Coast Guard MSO, Miami, and requested to provide a trajectory estimate for the slick.

The trajectory indicated that the oil would not come ashore in the Key Largo National Marine Sanctuary. Most of the slick would dissipate due to the weather conditions, with a chance of tarballs coming ashore on Elliot Key and Key Biscayne. NOAA estimated that the slick contained between five and twenty barrels of oil.

FINAL DISPOSITION OF THE INCIDENT

The slick dissipated later that evening. A helicopter overflight on June 17 saw no signs of the slick remaining. There was no apparent damage to the reef. The Coast Guard MSO planned to match slick samples with samples from the M/V World Zeal, which had transitted the area, to see if the vessel responsible for the oil slick.

BIBLIOGRAPHY

Galt, J. A. and D. L. Payton. 1981. Finite element routines for the analysis and simulation of nearshore circulation. Mechanics of Oil Slicks. Paris, France, pp. 121-132.

Research Planning Institute. 1984. The Sensitivity of Coastal Environments and Wildlife to Spilled Oil in South Florida. An Atlas of Coastal Resources. Tallahassee: Florida State Department of Veteran and Community Affairs.

Torgrimson, Gary M. 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12. Seattle: Ocean Assessments Division.

NOAA Response Report

Mystery Oil Spill
Duck Key, Florida
June 23, 1987

Gary D. Petrae, Scientific Support Coordinator

INCIDENT SUMMARY

On June 23, 1987, the U.S. Coast Guard Marine Safety Office, Miami, received a report of a heavy black oil slick measuring 30-40 acres, approximately 8 nautical miles southeast of Duck Key, Florida. The slick was later confirmed as a light sheen by a U.S. Navy helicopter operating in the area. This fact was also confirmed by a Coast Guard small boat which, when on-scene, had difficulty finding the slick.

NOAA RESPONSE

NOAA/OAD was notified of the incident on June 23, 1987, by the Coast Guard Marine Safety Office, Miami, and requested to stand by until the Navy had completed the overflight. NOAA prepared to provide a spill trajectory and identify resources at risk if needed. After the confirmation and report from the Navy it was apparent that the slick was dissipating rapidly. No further action was requested.

FINAL DISPOSITION OF THE INCIDENT

The slick broke up and dissipated before reaching shore. There have been no reports of tar balls or oil reaching shore.

BIBLIOGRAPHY

Research Planning Institute. 1981. South Florida Oil Spill Sensitivity Atlas. Miami: South Florida Regional Planning Council.

NOAA Response Report

Mystery Oil Spill
Key West, Florida
June 23, 1987

Gary D. Petrae, Scientific Support Coordinator

INCIDENT SUMMARY

On June 23, 1987, the U.S. Coast Guard Marine Safety Office, Miami, received a report from a private aircraft of a heavy black oil slick measuring 2 nautical miles long, approximately 10 nautical miles south-southwest of Key West, Florida near the Dry Rocks. A second aircraft later confirmed the report.

NOAA RESPONSE

NOAA/OAD was notified of the incident on June 23, 1987, by the Coast Guard Marine Safety Office, Miami, and requested to provide a trajectory analysis and an estimate of the amount of oil contained in the slick.

NOAA estimated that the slick contained from 1 to 15 barrels of oil, depending on the coverage and thickness of the slick, and emphasized that the trajectory analysis was dependent on the accuracy of the spill's reported position. If the slick was inshore of the reef line it would come ashore as tar balls and move approximately 0.2 knots to the northwest. If the slick were offshore from the reefs, the Florida Current would move it northeast and north, with possibly a few tar balls washing ashore in the Upper Keys and Southeast Florida.

FINAL DISPOSITION OF THE INCIDENT

The incident was closed after the Florida Marine Patrol reported that the slick was actually an algal bloom.

BIBLIOGRAPHY

Research Planning Institute. 1981. South Florida Oil Spill Sensitivity Atlas. Miami: South Florida Regional Planning Council.

Torgrimson, Gary M. 1984. The On-Scene Spill Model; A User's Guide. NOAA Technical Memorandum NOS OMA-12. Seattle: Ocean Assessments Division.

NOAA Response Report

Mystery Oil Slick
Miami, Florida
August 13, 1987

David J. Kruth, Scientific Support Coordinator

INCIDENT SUMMARY

On August 13, 1987, the U.S. Coast Guard Marine Safety Office (MSO) in Miami was notified of an oil slick consisting of three large patches of oil, located 15 miles south of Fowey Rocks and 3 miles outside of the reef line.

NOAA RESPONSE

NOAA/OAD was notified of the slick on August 13, 1987, by the Coast Guard MSO, Miami, and requested to provide a trajectory estimate for the slick.

Due to proximity of the slick to the Gulf Stream, NOAA predicted that most of the oil would remain in the Gulf Stream and dissipate. However, eddies on the edge of the Gulf Stream sometimes spinoff and could result in some tarballs and oil washing ashore.

FINAL DISPOSITION OF THE INCIDENT

The slick dissipated naturally in the Gulf Stream. There was no reports of oil or tarballs coming ashore. No injury to marine life was reported. No source for the oil was ever identified.

BIBLIOGRAPHY

Galt, J. A. and D. L. Payton. 1981. Finite element routines for the analysis and simulation of nearshore circulation. Mechanics of Oil Slicks, Paris, France, pp. 121-132.

Research Planning Institute. 1984. The Sensitivity of Coastal Environments and Wildlife to Spilled Oil in South Florida. An Atlas of Coastal Resources. Tallahassee: Florida State Department of Veteran and Community Affairs.

Torgrimson, Gary M. 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12. Seattle: Ocean Assessments Division.

NOAA Response Report

Monroe County Mosquito Control District
Vaca Key, Florida
August 20, 1987

Gary D. Petrae, Scientific Support Coordinator

INCIDENT SUMMARY

On August 19, 1987, an aerial spraying aircraft from the Monroe County Mosquito Control District was forced to dump approximately 200 gallons of a spray mixture containing DIBROM 14 (Naled) into the ocean about 5 miles south-southeast of Marathon, Florida. The rupture of a spray delivery line inside the aircraft had forced the pilot to dump the mixture to prevent continued exposure of aircraft personnel to the DIBROM. The Mosquito Control personnel notified the U.S. Coast Guard Marine Safety Office, Miami.

NOAA RESPONSE

NOAA/OAD was notified of the incident on August 20, 1987, by the Coast Guard Marine Safety Office, Miami, and requested to provide chemical, toxicological and trajectory information. NOAA was advised that the spray mixture was made up of 63% diesel oil, 31% Fog oil, 2% ORTHO Additive, and 4% DIBROM 14 (Naled).

NOAA indicated that the oils and the additive were used as a fog-producing agent and vehicle for the pesticide Naled, the primary toxic ingedient. Naled is an organo-phosphate, non-systemic pesticide commonly used for large area mosquito control.

The DIBROM 14 contained 85% Naled, resulting in a 6.8-gallon spill. This amount would be neutralized quickly in the ocean, with perhaps some species of marine organisms impacted in the immediate area of the spill at the time of the spill. Naled does not bio-concentrate and will present no long-term effects; the slick created by the oils in the mixture would dissipate quickly.

FINAL DISPOSITION OF THE INCIDENT

There were no sightings of the slick or reports of tar balls or fish kills.

BIBLIOGRAPHY

Ballou, Tom, Research Planning Institute, Inc.; Columbia, South Carolina, personal communication, August 20, 1987.

Hudson, Clark, Chevron Chemical Company, Orlando, Florida, personal communication, August 20, 1987.

Overton, Dr. Edward, Louisiana State University Institute for Environmental Studies, Baton Rouge, personal communication, August 20, 1987.

Ryan, Lois, Director, Monroe County Mosquito Control District, Key West, Florida, personal communication, August 20, 1987.

NOAA Response Report

Continental Stevedoring & Terminals
Miami, Florida
September 3, 1987

Gary D. Petrae, Scientific Support Coordinator

INCIDENT SUMMARY

On September 3, 1987, the U.S. Coast Guard Marine Safety Office, Miami, received a report from Continental Stevedoring & Terminals of a leaking shipping container of glacial acetic acid at the Port of Miami. The container held 573 10-gallon drums of the acid; an unknown number were ruptured. The spill was first noticed that morning by the longshoremen who were preparing to load the container onto a truck for shipment. The container was subsequently moved to an isolated spot by Continental to await response and cleanup.

NOAA RESPONSE

NOAA/OAD was notified of the incident on September 3, 1987, by the Coast Guard Marine Safety Office, Miami, and requested to provide information on protective measures during investigation and cleanup.

NOAA recommended that the container remain isolated because of the corrosive and combustible nature of the acid; that skin contact and splash protection clothing be worn; and that respiratory protection would be necessary in the confined spaces of the container and during cleanup. NOAA further advised that the acid could become flammable in the container if it became too hot.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard remained as observers while Continental Stevedoring responded by hiring Chemical Waste Management, who cleaned up the spill successfully with no further incident. While there were 12-14 drums ruptured and partially empty, the total amount of acid spilled remains undetermined.

BIBLIOGRAPHY

Fingas, Merv, ed. 1984. Manual for Spills of Hazardous Materials. Ottawa: Environment Canada.

Hawley, Gessner G. 1987. The Condensed Chemical Dictionary, Eleventh Edition. New York: Van Nostrand Reinhold Company.

Kruth, David, National Oceanic and Atmospheric Administration, Miami, Florida, personal communication, September 3, 1987.

Sax, N. Irving. 1984. Dangerous Properties of Industrial Materials, Sixth Edition. New York: Van Nostrand Reinhold Company.

Sherman, Robert, Louisiana State University Institute for Environmental Studies, Baton Rouge, personal communication, September 3, 1987.

U.S. Coast Guard. 1984. Chemical Hazard Response Information System (CHRIS), Volume II. Washington, D.C.

NOAA Response Report

Drew Ameriod International
Sault Ste. Marie, Michigan
October 27, 1986

Ted Kaiser, Scientific Support Coordinator

INCIDENT SUMMARY

On October 3, 1986, several chemical storage drums were discovered in a creek off the St. Marys River by the U.S. Coast Guard Group, Sault Ste. Marie. The drums were labelled "Drew Ameroid International, FOT 7KK-009T, 312-30-282, 120L." The Coast Guard notified the Chippewa County Health Department, and an investigator was sent to the scene. Upon interviewing a member of the former drum owner's family, they determined that the barrrels were empty and had been obtained by a family member 5-15 years before. The drums had apparently been buried in the creek bottom until recently, when they were exposed during removal of a drainage culvert.

NOAA RESPONSE

NOAA/OAD was notified of the incident on October 27, 1986, by the Coast Guard Marine Safety Office, Sault Ste. Marie, and requested to provide information on the past contents of the drums.

NOAA contacted the Drew Chemical Corporation in Boonton, New Jersey for information regarding this product. The company replied that the drums contained a preburner type of fuel additive that was helpful in solublizing water and sludges before burning. The product consisted of aromatic petroleum hydrocarbons, dichlorotoluene, and two other non-toxic proprietory compounds, probably surfactants and alcohols. No concentrations were given. The product was a red-colored liquid with a flash point of 160°F. A recommended Personnel Evacuation Level (PEL of 100 ppm was suggested, based on the aromatic content of the material. NOAA advised the Coast Guard that, if any material remained in the drums, normal precautions used in the handling of gasoline would be appropriate.

FINAL DISPOSITION OF THE INCIDENT

The drums were essentially empty and no product was spilled. No laws were violated and the case is considered closed.

BIBLIOGRAPHY

Documentation of the Threshold Limit Values, Fourth Edition. 1980. Cincinnati: American Conference of Governmental Industrial Hygienists.

Hawley, Gessner G. 1981. The Condensed Chemical Dictionary, Tenth Edition. New York: Van Nostrand Reinhold Company.

McIntyre, Steve, Drew Chemical Corporation, Marine Division, Boonton, New Jersey, personal communication, October 27, 1986.

Ribant, Michelle M. 1986. Pollution Investigation Report. Sault Ste. Marie, Michigan: Chippewa County Health Department.

Mail from MSOSSM at 7:24 on 11/14/86
Copies sent to: LAKES MSOSSM
Please pass to Ted Kaiser
From COTP SAULT
Here is the information on the chemical barrels Petty Officer Kerr spoke with you about.
The barrels are labeled: DREW AMERIOD INTERNATIONAL
FOT
7KK-009-T
312-30-282
120 LITER
A Sanitarian from the Chippewa County Health Department investigated and found the following information: The barrels are empty and were at one time being used for garbage cans. The barrels were obtained by an employee of the shipping indutry 5-15 years ago. The barrels were apparently buried in the creek bottom until recently when they were exposed and brought to the creek bank when removal of a drainage culvert was being done, the barrels are presently half full of water and no present hazards remain. The chemical that the drums had contained was a pre burner treatment for fuel oil consisting mainly of AROMATIC PETROLEUMS with a flash point of 160 F.
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MORE?
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MK3 Gladdish

CCHD

Chippewa County Health Department

PERSONAL HEALTH SERVICES
ADMINISTRATIVE OFFICES
140 W. Spruce Street

ENVIRONMENTAL HEALTH
HYPERTENSION PROGRAM
139 Arlington Street

Telephone 906-635-1566
SAULT STE. MARIE, MICHIGAN 49783

October 21, 1986

Lt. O'Shea
U.S. Coast Guard
337 Park Place
Sault Ste. Marie, MI. 49783

Dear Lt. O'Shea:

Enclosed are the Pollution Investigation Reports from incidents on or near waterways. We are currently getting our filing and reporting system in place for Groundwater Compliance Activities and will now file reports as they happen. The other incidents investigated to date occurred inland and posed no apparent threat to surface waters.

Feel free to contact the Chippewa County Health Department with any questions concerning these reports.

Sincerely,

Michelle M. Ribant

Michelle M. Ribant, Sanitarian
Environmental Health

MMR:am

Encls.

Copies to:
U.S. Coast Guard
Sault Ste. Marie

State of Michigan
Department of Natural Resources

P.E.A.S. Incident No.

POLLUTION INVESTIGATION REPORT

DNR Employee Preparing Report — Name, Division, and phone number. Chippewa County Health Dept.
139 Arlington
Sault Ste. Marie, MI. 49783
(906) 635-1566

Alleged Violator — Name, title, and phone number.
Privately Owned. Residential Property.
Current Owner: Lewis Farrand, 580 E Columbia Pontiac, MI. 48055
Former Owner: Ball, Sault Ste. Marie, MI. 4978?

1. Type of Problem ☐ Air ☑ Water ☐ Solid Waste ☐ Soil Erosion ☐ Submerged Lands ☐ Flood Plain ☐ Inland Lakes and Streams
☐ Other

2. Statute or Administrative Rules involved:

3. Brief summary of the nature and extent of the problem and the effect of the problem on the environment or natural resources.

On Oct. 3, 1986 the U.S. Coast Guard phoned in a Report concerning chemical storage drums sited in a small creek off of the St. Mary's River, Between St. Mary's River & Bermuda Ave, Sault Ste. Marie, MI.

An investigation by Michelle Ribant, Sanitarian of the Chippewa County Health Dept revealed (3) 120 litre barrels from Drew Chemical Corperation along bottom & bank of creek. The barrels were empty & an interview with a member of former owners family idicated they were empty barrels used, at one time, as garbage cans. They were initially obtained by an employee in the shipping industry years (5-15) ago. They were apparently buried in creek bottom until recently when, during removal of a drainage culvert, the were exposed & brought to bank of creek. Indentification Numbers on barrels were: Drew Ameroid International
FOT
7KK-009-T
312-30-282
120 liter.

4. A. Date of Emmission, Discharge or Alleged Violation: N/A

B. Time (if known): — C. Approximate Location: —

5. Were there any witnesses? ☐ Yes ☑ No Attach names and addresses with a brief summary of what each saw.

6. Were any photos taken? ☐ Yes ☑ No If yes, identify by whom, how many, dates, and what they depict.

27 OCT 86 SPOKE WITH MR. KAISER ON CHEMICALS INVOLVED. MR KAISER CONTACTED DREW AMEROID INT. AND FOUND THE FOLLOWING: PRODUCT IS A PRE BURNER TREATMENT FOR FUEL O. PRIMARY CONSTITUENTS ARE AROMATIC PETROLEUMS. FLASH POINT OF 160° F. TREAT RESIDUALS AS GASOLINE. USED TO SOLUBILIZE WATER + SLUDGES. (CHEMICAL SURFACTANTS.) I EXPLAINED TO HIM THAT NO HAZARDS (RESIDUALS) ARE REMAINING.

NOAA Response Report

Plabell Rubber Products Inc.
Maumee River
November 17, 1986

Ted Kaiser, Scientific Support Coordinator

INCIDENT SUMMARY

On August 22, 1986, U.S. Coast Guard Marine Safety Office (MSO), Toledo, personnel discovered a large rainbow sheen flowing into the Maumee River from the Swan Creek entrance. Subsequent investigation showed the sheen to be originating from the creek bank approximately 1,500 yards upstream adjacent to property owned by Plabell Rubber Products Inc. The creek bank was found to be saturated with oil which was leaching into the creek. Fifty feet directly up the creek bank on Plabell property were fill pipes for two 1000-gallon underground storage tanks used by the company. The tanks contained a "chemically neutralized heavy napthenic distillate," product name CIRCO LIGHT RPO (Sun Refining and Marketing).

Oil samples were taken from the tanks, water, and soil, and sent to the City of Toledo Environmental Services Agency and the Coast Guard Central Oil Identification Laboratory (COIL) in Groton, Connecticut, for analysis. The Coast Guard MSO, Toledo, also deployed a sorbent boom to contain the oil.

Results of the COIL lab testing indicated that samples fom the tanks and water were very similar, but contained differences that could not be attributed to weathering or contamination alone. The president of Plabell Rubber declined responsibility based on these differences between the tank and pollutant samples.

On November 17, another large rainbow sheen was found on the Maumee emanating from Swan Creek. Plabell Rubber Products was again found to be the source, when a sorbent boom placed by the company was found to be ineffective.

NOAA RESPONSE

NOAA/OAD was notified of the incident on November 17, by the Coast Guard MSO, Toledo, and requested to paticipate with the Coast Guard in an inspection of the site. NOAA, City of Toledo sewer officials, Coast Guard MSO personnel, prospective contractors, and the president of Plabell Rubber met on scene and inspected the site. When Plabell Rubber refused to accept financial responsibility or acknowledge notification of government cleanup action, the Coast Guard assumed Federal cleanup responsibilities on November 17, 1986.

Over the course of the next three weeks, NOAA visited the site several times as various stages of the collection system were constructed. Recommendations were provided on cleanup, collection, and location techniques to determine the probable extent of the contamination. NOAA also provided information on the chemistry of CIRCO LIGHT RPO. The Institute for Environmental Studies at Lousiana State University examined the gas chromatograph traces from the COIL lab and performed some additional gas chromatography and Michromomitor 500 work in an attempt to get a better match and determine the presence of other contaminants, specifically polychlorinated biphenyls and volatile organics. None of these was present.

As the spill progressed, NOAA consulted with the Coast Guard MSO, Toledo, the U.S. Environmental Protection Agency (EPA), and the Ohio EPA regarding shipping and disposal requirements, and any additional tests required. It was collectively decided that all interests would best be served by declaring the oil and contaminated dirt a hazardous waste. NOAA also advised logging the weather and creek water levels on daily visits to the site in an attempt to correlate creek height and release rates, and the National Ocean Service gauge heights in the Maumee River.

FINAL DISPOSITION OF THE INCIDENT

By early January 1987, a sheet metal dike had been constructed around the bank where leaching was occurring. In addition, the Coast Guard COIL laboratory performed additional tests using 5, 10, 20, and 30% mixtures of SUNDEX (the material originally stored in the underground tanks), and CIRCOLITE RPO. It was found that a 30% mixture produced an excellent match with the river samples. Additional lab analysis by Biological and Environmental Control Laboratories, Inc., was done to meet specific disposal requirements. A Violation Report and Cost Summary have been written and submitted to the Coast Guard District Nine office for funding of long term removal costs and possible administrative hearings.

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NOAA Response Report

Van de Mark Chemical Company
Lockport, New York
December 9, 1986

Ted Kaiser, Scientific Support Coordinator

INCIDENT SUMMARY

At 0930 on December 9, 1986, approximately 150 gallons of isopropyl chloroformate was spilled into the sanitary sewer system at the the Van de Mark chemical company plant in Lockport, New York. The spill occurred while the product was being transferred between two tanks. The Coast Guard, the U.S. Environmental Protection Agency, New York Department of Environmental Conservation, National Response Center, Niagara County Health Department, and the local waste water treatment plant were notified. Due to initial reports that the material might contain phosgene, the sewage treatment plant was evacuated and three people sent to the hospital for examination.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1130 on December 9, 1986, by the U.S. Coast Guard Marine Safety Office, Buffalo, and requested to advise the Niagara County Health Department, who was responding to the incident, on appropriate handling methods. NOAA advised that this material is a phosgene derivative but does not contain significant amounts of phosgene, if pure. It is also non-soluble in, and denser than, water; flammable; and highly toxic.

On December 10, NOAA provided additional information on the chemical to EPA's Response and Prevention Branch in Edison, New Jersey, in response to a request for information and sources.

FINAL DISPOSITION OF THE INCIDENT

It was later determined that the concentration of phosgene in the isopropyl chloroformate was less than .1 parts per million, and that only 100 gallons were spilled. The material eventually wound up in the local waste water treatment facility. No isopropyl chloroformate entered a navigable waterway or affected the environment. The Coast Guard handled the pollution report and EPA conducted the National Pollutant Discharge Elimination System permit referral.

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7-DISTRICT XI

NOAA Response Report

T/V Pacific Baroness
Santa Barbara Channel, California
September 21, 1987

David Kennedy, Scientific Support Coordinator

INCIDENT SUMMARY

At 0600 on September 21, 1987, the T/V Pacific Baroness and the car carrier Atlantic Wing collided twelve miles southwest of Point Concepcion, California. The Pac Baroness, or Pac Baroness, subsequently sank with a cargo of 21,000 metric tons of copper concentrate and 350,000 gallons of marine diesel and industrial fuel oil. The Atlantic Wing was able to rescue the crew from the Pac Baroness and return to Long Beach, California for repairs.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 0930 on September 21, 1987, by the U.S. Coast Guard Marine Safety Office (MSO), Long Beach, California, and requested to provide trajectory information. Throughout the first twelve hours of the spill, the NOAA Scientific Support Coordinator (SSC) provided information to the Coast Guard MSO, Long Beach, about trajectories, fuel toxicity, and potential environmental problems associated with the copper concentrate cargo.

The sinking caused an oil spill estimated at approximately 50,000 gallons and the vessel continued to leak oil from from the sinking site for the next twenty days.

At 1700 on September 21, the SSC was requested to go to Long Beach to help the Coast Guard with technical aspects of the spill. The Coast Guard MSO also directed the SSC to complete the dispersant checklist which is required in Region IX before the use of dispersants can be approved.

Over the next five days, the SSC and a staff of five Hazardous Materials Response Branch personnel provided technical information to the Coast Guard On-Scene Coordinator on several different issues, including

- dispersants, trajectory modeling;
- overflight monitoring and interpretation;
- resources in Southern California and the Channel Islands at risk from the spill;
- chemical interpretation and hazard assessment of copper ore; and
- liaison to the scientific community regarding research opportunities.

At the conclusion of the spill response, the NOAA SSC implemented a research program for observing dispersant applications on the remaining oil slick from the Pac Baroness.

FINAL DISPOSITION OF THE INCIDENT

By September 25 the initial spill resulting from the sinking had dissipated. The Pac Baroness continued to leak a small quantity of oil for the next ten days. Oil did not reach the California coast or the Channel Islands, significantly reducing the potential for environmental impact.

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8-DISTRICT XII

NOAA Response Report

Safe Keep Storage
Hayward, California
October 3, 1986

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

On October 3, 1986, approximately 20 drums of various materials, some of them leaking, were discovered to be illegally stored at the Safe Keep Storage facility in Hayward, California. The facility manager was overcome by fumes while investigating an unknown substance reported to be leaking underneath a storage door.

Safe Keep Storage stores several chemicals, including hydrogen peroxide, methyl ethyl ketone, ammonia, pheacetin powder, sterile alcohol, proplylene glycol, sodium sulfanate, and calamide-0. The majority of the leaking chemicals drained into a storm drain, approximately 1 mile from the nearest marsh.

NOAA RESPONSE

NOAA/OAD was notified of the incident on October 3, 1986, by the U.S. Coast Guard Marine Safety Office, Alameda, and requested to provide level of protection strategies; and to research the legal status of methyl ethyl ketone, ammonia, and hydrogen peroxide as hazardous materials. NOAA was also requested to review the cleanup and disposal procedures being carried out by Crosby and Overton, contracted by the facility to perform cleanup operations at the site.

NOAA advised that methyl ethyl ketone and ammonia are listed as hazardous substances, as defined in section 101 (14) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, and are designated as hazardous material for the purposes of transportation.

NOAA recommended that entry personnel wear Level A protection. After careful review, NOAA determined that Crosby and Overton's cleanup and disposal procedures were adequate to protect human health and the environment from further harmful impact.

FINAL DISPOSITION OF THE INCIDENT

On October 4, 1986, Crosby and Overton personnel wearing Level B protection entered the storage area and catalogued the chemicals present, then separated out the leaking drums and placed them in overpacked containers. The area was then washed with water. The Coast Guard closed the case in October 5 after a combustible gas indicator and Draeger tubes did not detect any residue.

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Wescott, Burl, National Oceanic and Atmospheric Administration, Seattle, Washington, personal communication, October 3, 1986.

NOAA Spill Response

F/V Tony Kaye
Moss Landing, Monterey, California
October 6, 1986

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 0530 on October 6, 1986, the U.S. Coast Guard Marine Safety Office, Alameda, California was notified that the fishing vessel, Tony Kaye, carrying approximately 800 gallons of No. 2 diesel fuel on board, had run hard agound on the rocks off Moss Landing. Three fishermen aboard were rescued. Within several hours of the grounding, the 49-foot fishing vessel broke up and spilled its entire fuel load.

The U.S. Coast Guard Marine Environmental Pollution team, dispatched to the scene, observed a sheen emanating from the broken vessel, which impacted approximately 100 meters of shoreline. Because the heavy wave action in the surf zone around Moss Landing would make cleanup of the sheen difficult, NOAA recommended that the Moss Landing Marine Laboratory intakes be temporarily closed until much of the diesel fuel evaporated and the sheen dissipated.

NOAA RESPONSE

NOAA/OAD was notified of the incident on October 6, 1986, by the Coast Guard Captain of the Port (COTP), Alameda, and requested to provide resources at risk and trajectory information for the area of the spill. NOAA advised that the environmental resources impact would be minimal due to the rapid dissipation characteristics of No. 2 diesel, the sea energy generated along the shoreline, and the 65°F temperature at the time of the incident. NOAA also advised that the sheen may be present for approximately 24 hours.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard determined that it would take several hours to mobilize and deploy absorbent booms and pads and that because of the weather conditions, no cleanu up or mitigation effort was necessary. Based on that analysis and observations made the following day that showed no detectable sheen in the surf on the shoreline, the U.S. Coast Guard closed the pollution case.

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NOAA Response Report

Fuel Oil Spill
San Francisco, California
October 21, 1986

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

On October 21, 1986, the U. S. Coast Guard Marine Safety Office, Alameda, California was notified by the Port of San Francisco of oil and sheen in San Francisco Bay between Pier 31 and Pier 86. The Coast Guard dispatched a couple of marine technicians to the scene of the incident. From pier observations, the spill appeared extenstive. A Coast Guard helicopter overflight estimated the extent of the spill at approximately ranged 50 barrels of oil.

California Department of Fish and Game and local fisherman were appraised of the release.

NOAA RESPONSE

NOAA/OAD was notified of the incident on October 21, 1986 by the Coast Guard, Captain of the Port, Alameda, and requested to provide a trajectory and to discuss cleanup and booming strategies. NOAA advised that nesting and diving birds whose habitat was the piers on the San Francisco waterfront, were at risk from the spill.

NOAA's trajectory indicated that the sheen and most of the oil would dissipate over the next 24 hours and would flow out with the outgoing ebb tide. This was observed as the ebb tide came into effect. There were some small pockets of oil trapped underneath the piers. NOAA recommended that absorbent pads be placed at the pier face to pick up as much of the oil as possible.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard dispatched a trailor with absorbent pads and boom to keep the oil out of China Basin, an area of marina development.

When a Coast Guard overflight on October 22 was unable to locate oil remaining in the areas around the pier faces, the case was closed as a pollution incident. The Coast Guard is trying to locate a spiller

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NOAA Response Report

Dimethoate Spill
Gilroy, California
October 24, 1986

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

On October 24, 1986, a truck carrying a 40-foot container loaded with approximately 60 55-gallon drums of dimethoate in a 95% concentration was en route from Oakland to Five Points, California, when the driver notified the U.S. Coast Guard Marine Safety Office, Alameda, of an overpowering odor emanating from the container. The Container Terminal Representative and a representative from the U.S. Department of Agriculture had approved the transport of the container via truck. However, when the truck reached the weigh station at Gilroy, California, about 50 miles from the Oakland public terminal, the California Highway Patrol and weigh station determined that the truck was overloaded and would not allow it to continue to Five Points.

The U.S.Coast Guard notified Santa Clara County Health, Santa Clara, California and California Office of Emergency Services of the incident.

NOAA RESPONSE

NOAA/OAD was notified of the incident on October 24, 1986, by the Coast Guard, Marine Safety Office, Alameda, and requested to advise on the appropriate level of protection for personnel inspecting the containter, cleanup procedures, as well as technical information on the toxic properties of the material. NOAA advised that dimethoate, also known as technisch, in a 95% solution is an agricultural pesticide used in the San Joaquin Valley. NOAA also warned that the pungent odor was excessive and that the container should be opened by responders wearing Level B protection.

When Santa Clara County response personnel wearing Level B protective clothing opened the container, they discovered that several sample bottles of the material, in a xylene base mixture, had spilled. This was cleaned up using sorbents, with the spilled material placed in overpacked canisters and disposed of.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard closed the case on October 27, 1986, after the container truck cargo was reloaded on two trucks, and the spilled material cleaned up and properly disposed.

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NOAA Response Report

Mystery Container
Newark, California
October 29, 1986

Stewart McGee, Jr. and Dexter Chan, Scientific Support Coordinators

INCIDENT SUMMARY

On October 29, 1986 at 0925, the U.S. Coast Guard Marine Safety Office, Alameda, was notified by the U.S. Fish and Wildlife Service San Francisco Bay Wildlife Refuge in Newark, California, that a container had been placed just outside the refuge. The container was a five-gallon, clear, polyvinyl plastic bottle containing a yellowish liquid which filled approximately 90% of the container. A rubber stopper with a sealing bolt was in place and no leaking was noted.

The Newark Fire Department, Alameda County Health Department, and the California Department of Fish and Game were notifed.

NOAA RESPONSE

NOAA/OAD was notified of the incident on October 29, 1986, by the Coast Guard Marine Safety Office, Alameda, and requested to advise on the probable nature of the material, and to recommend level of protection strategy for handling this material. NOAA recommended that Level A protection be worn by personnel handling the bottle, and that a sample be analyzed by a laboratory. Alameda County Health Official located a laboratory for this purpose. Finally, NOAA recommended that the material be taken to a proper disposal facility after analysis.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard closed the case on October 29, 1986, when they were informed by Alameda County health officials that the substance was a petroleum hydrocarbon-based product. The material was taken to a disposal facility.

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NOAA Response Report

F/V Miss In Soo
Moss Landing Laboratory
Monterey, California
October 31, 1986

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 0900 on October 31, 1986, the U.S. Coast Guard Captain of the Port was notified by Coast Guard Group, Monterey, that the Miss In Soo, an 85-foot fishing vessel, had lost power and rund aground on the beach one mile south of the entrance to Moss Landing Research Laboratory. The Miss In Soo was carrying 6,000 gallons of No. 2 diesel fuel, two barrels of lube oil, and 40,000 pounds of fish. The owner of the fishing vessel took full responsibility for the groundings and hired divers and salvage contractrors and a tug boat service.

The Coast Guard dispatched personnel to the scene of the incident, and alerted the U.S. Fish and Wildlife Service, California Department of Fish and Game, and Friends of the Sea Otter of the potential release.

NOAA RESPONSE

NOAA/OAD was notified of the incident on October 31, 1986, by the Coast Guard Marine Safety Office, Alameda, and requested to provide trajectory information should the ship break up and spill its entire cargo, as well as resources at risk information for the area north and south of the incident. NOAA was also requested to recommend cleanup and mitigation strategies.

NOAA recommended immediate mobilization of boom and absorbent material should the Miss In Soo break up. NOAA also recommended that the Moss Landing Research Laboratory be advised to secure any intakes in the vicinity of the grounded vessel. In addition, NOAA recommended the booming of Elkhorn Slough, a rich biological resource area.

Trajectories indicated that a total release of the fuel and lube oil would travel south along the shoreline for approximately two miles. The material that reached shore could reverse and travel north in the direction of Elkhorn Slough.

Salvage contractor, divers, and the news media arrived on scene within hours of the incident. The contractor and divers extended lines from the disabled fishing vessel to shore to act as an anchor. Lines attached to heavy tractors prevented the vessel being swamped by sea swells, by bringing the stern of the vessel perpendicular to the shoreline. With the fishing vessel stable, salvagers had unloaded much of the gear and cargo on board by November 2.

Before transferring the Miss In Soo's 6,000 gallons of No. 2 fuel, the fuel was used to run the auxiliary power supply system, and to act as ballast to maintain the ship's position perpendicular to the shoreline.

FINAL DISPOSITION OF THE INCIDENT

On November 2, tug boats attempted to tow the disabled steel-hulled vessel off the beach. After several tries and several parted lines and cables, this was acomplished by 0900 on November 3, 1986.

The Coast Guard will close the case on November 4 after fuel transfer operations have been accomplished, and the Miss In Soo is towed into port. No pollution was observed, although the sandy beach was disturbed by salvage operation traffic.

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NOAA Response Report

Caustic Soda Spill
San Francisco, California
November 21, 1986

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

On November 21, 1986, the U.S. Coast Guard Marine Safety Office, Alameda, was notified by the California Highway Patrol that a large tank truck had overturned in downtown San Francisco. A substance, leaking at a rate of approximately 1 gallon per minute, was observed. A manifest retrieved from the cab indicated that the leaking material was 90% caustic soda, 5% sodium chloride, and 3% Devonal.

U.S. Fish and Wildlife Service and the California Department of Fish and Game were notified, because it was discovered that approximately 10 gallons of the caustic soda solution had entered a storm drain leading directly to the Oakland inner harbor, which leads directly to the San Francisco Bay.

NOAA RESPONSE

NOAA/OAD was notified of the incident on November 21, 1986, by the Coast Guard Marine Safety Office, Alameda, and requested to advise on the physical and chemical characteristics of caustic soda, and provide level of protection strategy and cleanup reccommendations.

NOAA recommended that the storm drains be bermed off and the material already in the drain be flushed with copious amounts of water. Since the concentration of the caustic soda was high, Level B protection was recommended while repairing the leak and vacuuming up the residue.

FINAL DISPOSITION OF THE INCIDENT

The spilled area was cordoned off, the leak was stopped, and sand was placed around the storm drain. The fire department flushed the storm drain with copious amounts of water to dilute the material prior to it getting into the Bay. Normal traffic resumed within three hours of the incident.

The Coast Guard closed the case on the evening of November 21, when the cleanup was completed. No significant quantities of caustic soda solutions reached environmentally sensitive areas in the Oakland inner harbor.

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NOAA Response Report

Leaking Container Truck
Oakland, California
November 29, 1986

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 1630 on November 29, 1986, the U.S. Coast Guard Marine Safety Office, Alameda, California, was notified by the Oakland-Alameda County Fire Department that a 40-foot container truck was stalled off the shoulder in downtown Oakland. An unknown substance, with a slight odor, was observed leaking from the container. Fire department personnel approached the rear doors of the container truck in turnout gear and self-contained breathing apparatus and opened the doors. One hundred and fifty 55-gallon drums, some of them heavily corroded and leaking, were discovered. The drums were variously labelled "methylcar banioyl," "methyl thiosphorogithioate, " and "dimethoate."

NOAA RESPONSE

NOAA/OAD was notified of the incident on November 29, 1986 by the Coast Guard Marine Safety Office, Alameda, and requested to provide technical advice to the Oakland-Alameda County Fire Department regarding the toxicity of the materials, human health considerations, level of protection strategy, and environmental concerns.

NOAA recommended that Level B protection be worn to enter the rear doors of the container and survey the number of leaking drums. Berming of the nearby storm drains was also advised. Samples were recommended taken from the truck and the dirt/asphalt area of the intersection shoulder. The U.S. Environmental Protection Agency's (EPA) Technical Assistance Team arrived on the scene and relieved the Coast Guard of responsibility for the incident response.

FINAL DISPOSITION OF THE INCIDENT

Because the manifest could not be located, the concentration level and exact makeup of the chemical was unknown; however, the worst case scenario was assumed. EPA and a cleanup contractor placed the leaking drums in overpacked containers and hauled them away.

The U.S. Coast Guard closed the case when relieved of mitigating responsibility by EPA, but offered to stand by in case further assistance was required.

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NOAA Response Report

OOH Terminal Facility
Oakland, California
December 4, 1986

Stewart McGee, Jr. and Dexter Chan, Scientific Support Coordinators

INCIDENT SUMMARY

On December 4, 1986, a U.S. Coast Guard Marine Inspection Team discovered 33 containers of old batteries during a routine terminal ship inspection. Some of these containers were leaking, missing caps, turned on their side, fully charged, and some were turned upside down and had stained the container flooring area. There was also a strong odor inside the containers and in the vicinity of the containers.

NOAA RESPONSE

NOAA/OAD was notified of the incident on December 4, 1986 by the Coast Guard Marine Safety Office, Alameda, and requested to research the safety and health and environmental aspects of leaking battery acid. NOAA was also requested to review level of protection strategy and cleanup and removal procedures to be undertaken by the shipper of the batteries.

NOAA advised that sulfuric acid material, contained in batteries, is listed as a hazardous waste substance as defined in section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, and is designated as a hazardous material for the purpose of transportation, per 49 CFR 172.101. NOAA further advised that transportaion of batteries, properly packed, stowed, and dunnaged would not inherently create a health or environmental hazard. NOAA recommended that self-contained breathing apparatus, in addition to butyl rubber or neoprene suits, be worn for the immediate handling of the spilled material. These procedures would insure adequate protection to human health. Finally, NOAA recommended that the acid be prevented from entering the storm drain or the nearby estuary.

CURRENT DISPOSITION OF THE INCIDENT

The Coast Guard delayed the transport of the containers to Taiwan, pending investigation of the potential safety and health hazards and violation of any regulations relating to the proper storage and dunnage of transported material. The terminal manager notified the owner and full financial responsibility was taken for the violation of the safety and health risks and the improper storage of batteries designated for shipment on the high seas.

The U.S. Coast Guard will monitor the cleanup progress and release the shipment when the shipper has complied with all regulations.

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NOAA Response Report

Jet Fuel Spill
San Leandro, California
December 4, 1986

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

On December 4, 1986, the U.S. Coast Guard Marine Safety Office, Alameda, California, was notified by the Director of the Hayward Fire Department's Hazardous Materials Program that approximately 100 gallons of Jet A fuel had been spilled in San Leandro Creek and adjacent marshland area.

NOAA RESPONSE

NOAA/OAD was notified of the incident on December 4, 1986 by the Coast Guard Marine Safety Office, Alameda, and requested to provide additional resource at risk information, cleanup, and mitigation strategies.

The California Department of Fish and Game and the U.S. Fish and Wildlife Service were notified, and a local cleanup contractor was hired. The cleanup contractor placed absorbent pads in the middle of the stream in an effort to soak up the larger streamers of fuel. Observations indicated that the jet fuel had coated much of the vegetation the following day. On-scene reports indicated that much of the fuel had dissipated by the following day.

NOAA immediately recommended that the absorbent pads be placed in the center of the creek bed only. This was important because the marshland vegetation totally covered the banks of the creek bed. Trampeling the vegetation in an effort to place absorbent pads would cause more harm than good.

NOAA determined that, with the higher percentage of kerosene fractions in the jet fuel, the material would have a longer resident time and that the sheen would be seen emanating from the marshland vegetation for several days. However, the greatest impact would occur within the first 24-36 hours of the fuel coming in contact with the marshland vegetation.

NOAA determined the cleanup methods and procedures to be adequate to prevent further environmental damage to the resiurces in the area. The endangered salt marsh harvest mouse and a number of anadromous fish, were observed in the area.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard closed the case on December 5 when it was observed that the bulk of the Jet A fuel had been absorbed or dissipated as a result of the weather and the porperties of the fuel itself.

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NOAA Response Report

T/V Philadelphia
San Francisco, California
December 10, 1986

Stewart McGee, Jr. Scientific Support Coordinator

INCIDENT SUMMARY

On December 10, 1986, the U.S. Coast Guard Marine Safety Office, Alameda, was notified by the San Francisco and Benicia Fire Departments that the 800-foot tank vessel Philadelphia, owned by the EXXON Corporation and en route from Seattle, was scheduled to arrive at Anchorage 9 in San Francisco Bay on December 11, 1986. A fire and explosion had occurred in the paint locker aboard the vessel, where there was a 55-gallon drum, 90-gallon container, and another storage tank of 2-butoxyethanol, 2-nitropropane, picric acid, and kerosene with naphtha spirits. The paint locker was sealed after the fire was extinguished.

Although the actual cause of the fire was still under investigation, the Coast Guard Marine Safety Office, Puget Sound, cleared the vessel to transit to San Francisco, where the repairs were scheduled.

NOAA RESPONSE

NOAA/OAD was notified of the incident on December 10, 1986 by the Coast Guard Captain of the Port, Alameda, and asked to research the legal, scientific, and environmental status of the chemicals involved in the paint locker aboard the Philadelphia. NOAA was further requested to determine if these chemicals should be considered a hazardous waste as defined in section (101)(14) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

NOAA determined that the residue from the fire and explosion aboard the vessel would not be listed as a hazardous waste substance, although, because of the picric acid and the paint substances, advised that samples be taken by first entry personnel and a laboratory analysis completed to
be be completely certain of the residue content. NOAA recommended that Level B protection be used for first entry personnel.

FINAL DISPOSITION OF THE INCIDENT

On December 11, 1986, the Philadelphia steamed into Benicia Harbor where on-board repairs commenced after the burned residue from the paint locker was offloaded and properly disposed of. The Coast Guard closed the case on December 12. The actual cause of the fire and explosion was investigated by the Coast Guard Marine Safety Office, Puget Sound.

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NOAA Response Report

Cessna 172 Crash
San Mateo, California
December 11, 1986

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

On December 11, 1986, the U.S. Coast Guard Marine Safety Office, Alameda, was notified that a light aircraft had crashed a short distance from the San Mateo Bridge in the combination marsh-mud-saltflat area, spilling approximately 100 gallons of aviation fuel. The California Highway Patrol, the San Mateo Fire Department, and ambulance personnel rescued the pilot from the downed aircraft. The pilot was taken to San Mateo Hospital where he reportedly was diagnosed as suffering from multiple injuries. The Coast Guard notified the California Department of Fish and Game and the U.S. Fish and Wildlife Service.

NOAA RESPONSE

NOAA/OAD was notified of the incident on December 11, 1986, by the Coast Guard Marine Safety Office, Alameda, and requested to advise of the environmental resources at risk from the spill, and to recommend a spill mitigation strategy to representatives of the spiller.

NOAA advised that the crash area of the marshland is the nesting breeding and feeding area of the California clapper rail and the salt marsh harvest mouse, which are endangered species, and considered that natural degradation and evaporation of the aviation fuel be allowed to take place in order to disturb the environment as little as possible, after the aircraft was removed.

FINAL DISPOSITION OF THE INCIDENT

The aircraft's owner took financial responsibility for salvage and removal of the aircraft from the marshland. The Coast Guard, California Department of Fish and Game, and U.S. Fish and Wildlife Service were present during the salvage operation. With the assistance of helicopters and floats, the aircraft was floated, dragged to a salvage area near the levee, loaded on a truck, and taken to a facility for investigation into the reason for the crash.

The U.S. Coast Guard closed the case after the light aircraft was salvaged, taken to the local hangar for investigation into the cause of the incident, and after it was observed that the salt marsh harvest mouse and the California clapper rail appeared not to have been affected by the spill.

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NOAA Response Report

Baron Beechcraft Crash
Palo Alto, California
December 27, 1986

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

On December 27, 1986, a six-place Baron Beechcraft airplane took off from Palo Alto, California Airport and crashed approximately 90 seconds later, killing all six passengers aboard and spilling approximately 400 gallons of high octane aviation fuel and a very small amount of lube oil.

The U.S. Coast Guard Search and Rescue office, notified by witnesses to the accident, informed the Coast Guard Marine Safety Office, Captain of the Port, Alameda, of the possibility of pollution from this incident.

NOAA RESPONSE

NOAA/OAD was notified of the incident on December 27, 1986, by the U.S. Coast Guard Marine Safety Office, Alameda, and requested to advise of the probable effects of the oil spill on marine resources in the marshland where the plane crashed, as well as to recommend salvage procedures.

NOAA advised that high octane aviation fuel is extremely toxic and could harm the salt marsh harvest mouse, California clapper rail, and anadromous fish whose habitat is in the area of the incident. The sensitivity of the aquatic organisms to the high octane aviation fuel was considered sigificant, especially if there was any residence time on the marine life itself.

NOAA further advised that absorbent pads and booms be available for deployment. The fuel appeared to dissipate quite rapidly and by the following day, little sheen was observed on the water around the downed aircraft. A seven-foot tidal range in the marsh area, allowed for the creation of an ebb tide shield, which allowed for a faster transport of contaminants out of the bay and into open waters.

FINAL DISPOSITION OF THE INCIDENT

The National Transportation Safety Board and the Federal Aviation Administration instituted a salvage plan and procedure for retrieving the aircraft from the highly sensitive Palo Alto marshland. This salvage was completed in three days.

The victims' bodies were recovered by the Coast Guard and the Palo Alto Fire Department, and taken to the local coroners' office. The plane debris was loaded on a barge, with small pieces being placed in a sling and helicoptered to a salvage area , where it could be examined by the appropriate officials.

The Coast Guard closed the case on December 28, 1986, after observing no further fuel oil sheen in the vicinity of the downed aircraft or the marshland area.

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NOAA Response Report

F/V Pacific Invader
Point Saint George, Crescent City, California
January 5, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

On January 5, 1987, the U.S. Coast Guard Marine Safety Office, Alameda, was notified by Coast Guard Group, Humboldt, that the108-foot fishing vessel Pacific Invader was hard aground approximately one mile north of Point Saint George, Crescent City, California. The fishing vessel had approximately 20,000 gallons of number 2 diesel fuel on board. Rescue efforts began immediately and the entire crew was removed without injury.

NOAA RESPONSE

NOAA/OAD was notified of the incident on January 5, 1987, by the Coast Guard Marine Safety Office, Alameda, and requested to provide an analysis of the resources at risk and a trajectory should there be an spill. NOAA was also requested to advise of mitigation techniques.

NOAA predicted that a slick would form along the coastline in a northerly direction for approximately .5 miles, after which tarballs would be observed for another mile or two. NOAA also advised that weather conditions would cause much of the lighter hydrocarbon ends to dissipate over the next couple of days.

Resources at risk from a spill included benthic organisms, fish, crabs, shellfish, rockfish, Pacific halibut, mussels, shorebirds, waterfowl, and the California sea lion, which are known to reside along the shoreline in the vicinity of the grounding.

FINAL DISPOSITION OF THE INCIDENT

A salvage plan was developed and put into effect on January 6. All of the diesel fuel was eventually removed from the vessel, with no signs of spillage observed. Unusually high tides have hampered the removal of the vessel. The Coast Guard has continued to monitor the attempts to remove the vessel, and will do so until salvage or removal is complete.

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NOAA Response Report

T/V Aspen
Point Arena, San Francisco, California
January 6, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

On January 6, 1987, the fully laden, 850-foot tanker Aspen lost steerage 60 miles due west of Point Arena, California. The ship drifted 18 miles toward the shoreline before she was intercepted by two oceangoing tugs and towed safely into San Francisco Harbor. Divers discovered that the vessel's 50-ton rudder had fallen off, presumablye adrift off Point Arena.

NOAA RESPONSE

NOAA/OAD was notified of thes incident on January 6, 1987, by the U.S. Coast Guard Marine Safety Office, Alameda, and requested to predict the location of the Aspen's missing rudder. NOAA advised that the rudder (if it could indeed float, as the vessel's owner claimed) would travel south and east at a rate of approximately 10 miles per day, based on the California Current regime.

FINAL DISPOSITION OF THE INCIDENT

The vessel's cargo of crude oil was offloaded on January 7 and the Aspen was towed to a drydocking facility in San Francisco. The rudder was not recovered.

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NOAA Response Report

Mystery Oil Spill
Point Ano Nuevo, Santa Maria, California
January 12, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 0930 on January 12, 1987, the U.S. Coast Guard Marine Safety Office, Alameda, California, was notified by Coast Guard Group, Monterey, that approximately a dozen oiled marine birds had been observed on the shoreline about one mile south of Point Ano Nuevo. The birds were taken to a rehabilitation center, where they were cleaned, cared for, and the surviving birds released. The Coast Guard conducted overflights in a helicopter and C-130 aircraft looking for the mystery oil spill that had impacted the marine bird. Heavy weather in the area where the birds came ashore may have prevented the discovery of an offshore oil spill. Samples of the oil were taken from the feathers of the birds and an analysis was made to determine the type of oil.

NOAA RESPONSE

NOAA/OAD was notified of the incident on January 12, 1987, by the Coast Guard Marine Safety Office, Alameda, and requested to provide a trajectory hindcast analysis to determine where the oil might have been spilled, how much had been spilled, as well as what other resources could be at risk as a result of the spill.

NOAA, after considering the on-scene weather and location where the oiled birds had been found, recommended a search pattern that should include a one mile distance offshore and a 1-2 mile distance both north and south of the location of the birds. NOAA also advised that the endangered sea otter was at risk should oil be spotted off shore.

FINAL DISPOSITION OF THE INCIDENT

On January 13, 1987, the Coast Guard closed the case after overflights were unable to locate the source of the oil.

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NOAA Response Report

M/V Colima
Point Reyes-Farallon Islands National Marine Sanctuary, California
January 20, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 1530 on January 20, 1987, the 700-foot bulk carrier, Colima, lost all power 5.5 miles southwest of the Point Reyes-Farallon Islands National Marine Sanctuary, en route to San Francisco Bay to offload her cargo of 22.38 metric tons of heavy fuel oil, 179.6 metric tons of diesel oil,and 60 40-foot containers of cotton. The Coast Guard dispatched the tugs American Eagle and Sea Eagle to tow the Colima to Anchorage 9 inside the San Francisco Bay. Shipboard personnel began working on the vessel to determine the cause ofd the power failure.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1540 on January 20, 1987, by the Coast Guard Marine Safety Office, Alameda, and requested to assess the resources at risk, and provide trajectories for the vessel and its cargo. NOAA predicted that the vessel would drift toward the Farallon Islands at a rate of approximately .5 knots per hour.

NOAA advised that spilled material would reach the Point Reyes-Farallon Islands and other points within the National Marine Sanctuary and the northern California coast. All of these environmentally sensitive areas were identified and protection strategies recommended.

FINAL DISPOSITION OF THE INCIDENT

The Colima arrived at Anchorage 9 at 2230 that evening. Although no pollution occurred, the Coast Guard Marine Inspector was scheduled to visit the vessel the following day.

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NOAA Response Report

Mystery Diesel Spill
Oakland, California
February 2, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

On February 2, 1987, the tugboat Sea King reported a diesel slick measuring approximately 1,500 feet long by 150 feet wide in Oakland Inner Harbor. A survey by the U.S. Coast Guard Marine Safety Office of the spill and adjoining areas failed to find the actual source of the spill. Although a ship had just completed bunkering in the Harbor, it was not necessarily the source of the spill.

NOAA RESPONSE

NOAA/OAD was notified of the incident on February 2, 1987, by the Coast Guard Marine Safety Office, Alameda, and requested to assess the environmental resources at risk from the spill, and to determine whether a contractor should be hired to clean up the diesel.

The spill was estimated to have occurred between slack and ebb tide. The Coast Guard was advised that cleanup activities would not be feasible in light of the evaporation and dissipation properties of the light hydrocarbons present in diesel fuel.

The Coast Guard notified California Department of Fish and Game representatives and the Regional Water Quality Board of the spill. NOAA advised against hiring a cleanup contractor because it was felt that the natural flushing by the ebb tide and evaporation would reduce the risk to marine wildlife.

FINAL DISPOSITION OF THE INCIDENT

On February 3, the spill had completely dispersed when the Coast Guard conducted a boat survey of the area where the diesel fuel had been observed the day before.

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NOAA Response Report

Oil Spill Sighted Off Piedras Blancas
Monterey, California
February 7, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

On February 7, 1987, the vessel Marine Challenger reported an oil spill, measuring approximately 3 miles long by 500 meters wide, located 8 miles north of Piedras Blancas and approximately 7 miles offshore. The oil was reported to consist of heavy globs with iridescent sheen on the edges.

NOAA RESPONSE

NOAA/OAD was notified of the incident on February 7, 1987, by the U.S. Coast Guard Marine Safety Office, Alameda, and requested to provide a trajectory analysis and to assess the environmental resources potentially at risk.

NOAA advised that the oil would move north for about 8 to 10 miles over the next 24 hours, with no shoreline impact. Natural weathering and increased wave action from the winds would cause the oil to dissipate before it came within six miles of shore.The Coast Guard decided to monitor the spill for a couple of days.

Because the spill occurred in the vicinity of the Central California coastal sea otter range, NOAA recommended that observations be continued for the presence of any endangered species, and potential oiling of diving and overwintering birds. The Coast Guard notified U.S. Fish and Wildlife Service, Friends of the Sea Otter, the California Department of Fish and Game, and the Moss Landing Marine Laboratory.

FINAL DISPOSITION OF THE INCIDENT

An inspection of the area by the Coast Guard on February 8-10, showed that most of the spilled oil had been dissipated by the weather front that passed through the area. No impact to resources was observed. The Coast Guard closed the pollution case on February 10, 1987.

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NOAA Spill Report

Oil Slick Sighted Off the Golden Gate Bridge
San Francisco, California
February 13, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

On February 13, 1987, the tank vessel EXXON Philadelphia sighted an oil slick extending from the Golden Gate north to a point 7 nautical miles due west of Point Reyes. Initial reports indicated that the area impacted was a stretch of ocean consisting of 10 miles by 2,000 yards of intermittent sheen. U.S. Coast Guard Marine Safety Office helicopter overflights confirmed the sightings and estimated that approximately 400 gallons had been spilled. The Point Reyes-Farallon Islands National Marine Sanctuary, the California Department of Fish and Game, and the U.S. Fish and Wildlife Service were notified.

The Coast Guard dispatched a 41-foot patrol boat to the area of the spill to sample the slick, but high winds and increased sea conditions prevented taking of adequate samples.

NOAA RESPONSE

NOAA/OAD was notified of the incident on February 13, 1987, by the Coast Guard Marine Safety Office Alameda, and asked to provide a trajectory and an analysis of resources at risk from the spill. In view of the weather front moving in with 20-knot winds and 3-5 foot seas, NOAA advised that the oil would move further up the coast, where it would continue to dissipate and weather over the next 24 hour. No shoreline impact was expected. NOAA advised that the forecasted northwesterly winds would minimize the risk of oil coming ashore, thus reducing the risk to diving sea birds, migrating birds, and resident waterfowl.

FINAL DISPOSITION OF THE INCIDENT

Although the tank vessel Cove Liter had been in the vicinity of the slick at the time the spill was estimated to have occurred, a successful match between the vessel's oil and the slick could not be made. The pollution case was closed on February 18, 1987. None of the wildlife in the area appeared to be oiled.

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NOAA Response Report

C/V Salta
Monterey, California
March 17, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 1321 on March 17, 1987, the U.S. Coast Guard Marine Safety Office, Alameda, received a report from Coast Guard Group, Monterey, that the 460-foot, steelhulled cargo vessel Salta was experiencing engine problems and was drifting in the direction of Monterey Bay. The ship carried coffee, tea, frozen fish, canisters of ammonia refrigerants, and various amounts of lube oil and fuel oil.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1330 on March 17, 1987 by the Coast Guard Marine Safety Office, Alameda, and requested to estimate the trajectory of a spill and analyze the resources potentially at risk should a spill occur. NOAA was also requested to notify appropriate state, Federal, and local agencies

NOAA advised the Coast Guard that the vessel would continue to drift toward Monterey Bay. The Salta should then be able to anchor in the lee of the bay, repair engines, and resume its journey. NOAA notified state and local agencies of the incident and informed them of the issues surrounding the potential grounding of the vessel.

FINAL DISPOSITION OF THE INCIDENT

At 1856 on March 17, the vessel departed for San Francisco after mechanical problems had been repaired. The Salta arrived early in the morning of March 18, at Oakland Outer Harbor Terminal. Since no pollution occurred, the Coast Guard closed this case when the Salta left Monterey Bay.

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NOAA Reponse Report

Twin Engine Cessna Plane Crash
Half Moon Bay, California
March 25, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 1745 on March 25, 1987, the U.S. Coast Guard Marine Safety Office, Alameda, was notified by the Coast Guard District Operations Center, Alameda that a twin engine Cessna aircraft from Monterey had crashed 8 nautical miles west of Half Moon Bay. The two people on board were presumed dead.

NOAA RESPONSE

NOAA/OAD was notified of the incident on March 25, 1987, by the Coast Guard Marine Safety Office, Alameda, and requested to determine the resources-at-risk and the toxicity of the Cessna's approximately 300 gallons of aviation fuel on the marine life in the area. The Coast Guard also requested a trajectory forecast and estimate of residence time for the fuel.

NOAA advised that the toxicity effect on marine life would be low to moderate. The trajectory forecast indicated that the aviation fuel would travel in a southerly direction and dissipate within eight hours of being released. Because of the 72°F temperature and the light and variable winds, the sheen from the aviation fuel would not reach the shore approximately 8 miles away.

The Marine Safety Office dispatched personnel to the scene of the incident, and notifed the California Department of Fish and Game, who also sent personnel to scene of the incident. Light traces of sheen were observed coming from the site, although the oil appeared to dissipate after traveling a short distance. A salvage company recovered two bodies from the wreckage. The remaining portions of the downed aircraft were salvaged later the following day. An investigation as to the cause of the incident is underway.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard departed when it was determined that cleanup of the aviation gas was impossible and that the lighter ends of the hydrocarbons were dissipating naturally. The case was closed on March 27 when no signs of pollution could be observed and the wreckage from the downed aircraft had been completely removed.

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NOAA Response Report

Arrow Transportation Company
Dublin, California
April 14, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

Early in the morning on April 14, 1987, an Arrow Transportation Company tank truck carrying approximately 5,000 gallons of vinyl acetate, butyl acrylate, and hydroquinone overturned outside of Dublin, California. Because of the noxious fumes and penetrating odor of the spilled material, the California Highway Patrol cordoned off a ten-block radius around the spill. Within two hours, 500 people were evacuated from residences around the area. Approximately 30 more people received medical attention at a local hospital. Dublin and Pleasanton fire departments, Alameda county health officials, and state and Federal officials responded to the incident.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 0730 on April 14, 1987, by the U.S. Coast Guard Marine Safety Office, Alameda, and requested to determine the direction of the plume and the extent of possible evacuation boundaries. NOAA was also requested to provide additional data on the products spilled.

NOAA confirmed the fact that vinyl acetate and butyl acrylate are listed as hazardous waste substances as defined in section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1986 and are designated as hazardous materials for the purpose of transportation (49 CFR 172.101). NOAA also advised local fire departments that vinyl acetate and butyl acrylate are eye/mucous membrane irritants, skin irritants, and could possibly impact the central nervous system.

NOAA recommended that copious amounts of water be poured into the bermed area containing the product to reduce the toxcity level, and suggested Level A protection or, at the very least splash gear, taped so that no skin would be exposed, with self-contained breathing apparatus, be worn by personnel working directly with the spilled chemicals.

NOAA further recommended sampling of Alamo Creek to determine the possible impact to the aquatic habitat in the stream.

FINAL DISPOSITION OF THE INCIDENT

IT Corporation, hired by the spiller, vacuumed the diluted chemicals into trucks and took the material to authorized hazardous waste disposal sites. Samples taken from Alamo Creek showed no significant rise in the toxicity level beyond background levels.

Freeways and the remaining portions of the area were opened to the public. Are residents were allowed to return to their homes that afternoon.

The tank truck driver and Arrow Transportation Company were cited for creating a public nuisance.

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NOAA Response Report

T/V Jinei Maru
Northwest of Bodega Bay
San Francisco, California
April 21, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

On April 21, 1987, the fishing vessel Oregon Beaver reported a black oil slick approximately 22 nautical miles northwest of Bodega Head. The U.S. Coast Guard Marine Safety Office performed an overflight of the area. Following the overflight, the Coast Guard estimated the slick to measure one-half mile wide by 1-2 nautical miles in length.

NOAA RESPONSE

NOAA/OAD was notified of the incident on April 21, 1987 by the Coast Guard Marine Safety Office, Alameda, and requested to provide an analysis of the resources at risk and a trajectory of the spilled oil.

NOAA advised the Coast Guard that the oil slick could be expected to move south and slightly east for approximately 8 miles during the next 24 hours. Subsequent overflight observations confirmed the trajectory. NOAA recommended that samples of the spilled oil be taken to determine a match with suspected discharging vessels transiting the coast of California.

NOAA advised that the oil would dissipate and break up prior to impacting land. However, the primary resource at risk from the slick would be the marine mammals in the area, as well as migratory waterfowl who could become oiled and transfer the oil to their nesting areas.

FINAL DISPOSITION OF THE INCIDENT

Since the oil had been spilled recently, the tanker Jinei Maru, inbound to San Francisco Bay with a cargo of Bunker C fuel, was suspected as the source. Samples from the ship were taken and sent to the Coast Guard Central Oil Identification Laboratory (COIL) to determine if there was a possible match.

The oil slick was begining to dissipate and it was expected to be present for the next couple of days and not reach shoreline. Advised that no physical cleanup was required, the Coast Guard Marine Safety Office monitored the movement of the slick for several days until it was no longer visible. Although the Coast Guard closed the pollution case on April 24, the case remains open as a marine discharge violation depending on the outcome of the COIL lab.

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NOAA Response Report

Diablo Canyon Nuclear Power Plant
Morro Bay, California
April 21, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 0940 on April 21, 1987, the U.S. Coast Guard Marine Safety Office, Alameda, was notified by the Coast Guard National Response Center in Washington, D.C. that a check valve had malfunctioned at the Diablo Canyon Nuclear Power Plant in Morro Bay, California. Sixty-eight pounds of ferric sulfate had been mixed with 5,500 gallons of water in the plant's reverse osmosis facility and inadvertently discharged into a small bay with direct access to the Pacific Ocean. An orange-yellow, scum-like material was noticed floating on the surface of the embayment in the vicinity of the the disharge pipe.

All of the requisite Federal, State agencies and local environmental concerns were notified immediately. Samples were immediately taken in the vicinity of the discharge to determine the toxicity level. The check valve was repaired the same day and the nuclear power plant returned to normal operations that same day.

NOAA RESPONSE

NOAA/OAD was notified of the incident on April 21,1987 by the Coast Guard Marine Safety Office, Alameda, and requested to provide standard chemical concentration standards and to advise whether ferric sulfate was toxic to wildlife.

NOAA advised that, although ferric sulfate is designated as a hazardous substance by the Clean Water Act, the amount spilled by the power plant was below the reportable quantity required. NOAA further advised the U.S. Coast Guard that ferric sulfate is primarily used as an anti-fouling compound in the fluid transfer pipes to reduce the amount of organic buildup of organisms that tend to obstruct the flow of fluids in the pipes.

In considering resources at risk, NOAA recommended that further dilution of the ferric sulfate would reduce the toxic concentrations to background levels and that the effect on fish, marine mammals, and other aquatic life would be minimal.

FINAL DISPOSITION OF THE INCIDENT

Samples taken after continued dilution of the ferric sulfate in the embayment indicated that the material had been diluted to background levels. No signs of marine bird, fish, or mammal impact were observed. The plant has a continuous sampling program in effect and will continue to monitor the area of the spill more closely. The U.S. Coast Guard closed this case on April 21, following consultation with response agencies.

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NOAA Response Report

Mystery Oil Spill
Pilarcitos Creek, Half Moon Bay, California
April 28, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 1620 on April 28, 1987, the U.S. Coast Guard Marine Safety Office, Alameda, was notified by an official of the San Mateo County Health Department of a spill of heavy black oil extending 200 yards in a drainage ditch. The drainage ditch empties into Pilarcitos Creek, which flows directly to Half Moon Bay and the Pacific Ocean. The affected area was approximately 7 feet wide and extended along the thickly vegetated banks of the ditch.

NOAA RESPONSE

NOAA/OAD was notified of the incident on April 28, 1987 by the Coast Guard Marine Safety Office, Alameda, and requested to determine the impact on the area's natural resources, provide a trajectory analysis, and extrapolate the possible source of the spill.

NOAA concurred with the on-scene observation that the oil spill was most likely the result of an illicit dumping, and predicted that the oil would move down slope, coating the shorelines of Pilarcitos Creek, and eventually enter Half Moon Bay.

The Coast Guard placed an earthen dam downstream of the leading edge of the slick. NOAA recommended removing any pooled oil from readily accessible areas. NOAA advised that natural weathering processes, plus the action of microscopic marine organisms, would assist in the dissipation of the remaining oil in those areas with heavy vegetation overgrowth.

FINAL DISPOSITION OF THE INCIDENT

A Federally funded stream cleanup operation on accessible areas of the stream and shoreline was completed on April 28. Although an investigation is underway to identify the spiller, the Coast Guard closed the pollution case on April 29. No signs of impacted marine life were observed. IT Corporation vacuumed the oil into holding tanks on April 29, to be disposed of at a proper facility.

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NOAA Response Report

Mystery Black Oil Spill
Pacifica, California
May 2, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 1000 on May 2, 1987, the U. S. Coast Guard Marine Safety Office, Alameda, was notified that tarballs were washing up on the sandy beach at Pacifica. The Coast Guard observed a lens of oil and sheen offshore measuring approximately 10 feet wide and extending north up the coast about 3 miles. Samples of the oil were taken, and Coast Guard Vessel Traffic System was asked whether a tanker vessel had been in the vicinity of the oil over the past 24 hours. The oil appeared to be weathered, indicating that it had been in the water at least one day.

The Coast Guard reported the incident to Federal, State, and local agencies. California Department of Fish and Game personnel were on-scene with the Coast Guard.

NOAA RESPONSE

NOAA/OAD was notified of the incident on May 2, 1987, by the Coast Guard Marine Safety Office, Alameda, and requested to determine the resources at risk and predict the trajectory of the spilled oil.

NOAA advised that the oil in the surf zone would move onshore and north at a rate of no more than 6 miles in one 24-hour stretch. NOAA further advised that, although the area from Pacifica Beach to Mussel Rock to Linda Mar Beach is an environmentally sensitive portion of the coastline, the impact from this small amount of oil will be minimal. In addition, the small quantities of black oil coming ashore would not be cost-effective or environmentally effective to remove. NOAA advised that natural wave action would clean the beach and disperse the oil.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard closed the pollution case when no further pollution was observed after two days of monitoring. Samples taken from a suspected tank vessel failed to match that of the spilled oil.

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NOAA Response Report

Chek Development Construction Company
San Rafael, California
May 7, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 0430 on May 7, 1987, heavy black oil was sighted in a marshy area approximately 3 miles inland from the mouth of Las Gallinas Creek, which empties directly into San Pablo Bay. A survey by the U.S. Coast Guard of the marsh indicated that the black oil stretched a distance of 600 meters and could been seen throughout the marshland area.

The Coast Guard notified appropriate Federal, state, and local agencies of the incident. California Department of Fish and Game representatives reported to the scene to advise the Coast Guard On-Scene Coordinator of the state's particular wildlife and environmental concerns.

The Chek Development Construction Company took financial reponsibility for the incident. Cleanup commenced at 0600. Further surveys by the Coast Guard indicated that the oil was confined to the area of the marsh.

NOAA RESPONSE

NOAA/OAD was notified of the incident on May 7, 1987 by the Coast Guard Marine Safety Office, Alameda, and requested to review cleanup operations performed by the contractor and to provide a resources-at-risk assessment of the effects of the oil on the marsh.

The marsh is the habitat of the salt marsh harvest mouse, an endangered species, and the California clapper rail, a protected species. Other resources at risk included clams and mussels beds, the subject of studies by local universities. NOAA advised that the clam and mussel beds would be exposed and possibly coated with oil during the fluctuation in tidal cycles.

The cleanup contractor concurred with NOAA's recommendation that impacts could be minimized by booming off the outfall where material is being discharged and to use absorbent pads extensively. Agency representatives and the Coast Guard continued to monitor the incident for the next two days.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard had determined that approximately 100 gallons of black oil had been spilled. The cleanup contractor removed the bulk of the oil with the rest left to biodegrade naturally. Laboratory samples further confirmed Chek Development Company's part in this spill incident. The Coast Guard closed the on May 11, 1987, when subsequent observations determined the cleanup to be adequate.

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NOAA Response Report

Hewlett-Packard Corporation
Mountain View, California
May 7, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 1938 on May 7, 1987, the U.S. Coast Guard Marine Safety Office, Alameda, was notified by a concerned citizen that a light, aqua-blue, milky substance had appeared in the storm drain canal. The canal is connected to a slough which is part of the greater San Francisco Bay Wildlife Refuge area. The Coast Guard surveyed the area around the slough and noted that the substance had formed a ring around the sides of the slough. Some of the material had also settled out and had become attached to the bottom, but the substance appeared to be confined to the storm drain canal and adjoining slough.

The Coast Guard notified the U.S. Fish and Wildlife Service, the U.S. Environmental Protection Agency, California Regional Water Quality Control Board, and California Department of Fish and Game.

Fire department and health officials traced the source of the spill to Hewlett-Packard Corporation, where residue from a roofing maintenance job had been inadvertently poured into the storm drain.

NOAA RESPONSE

NOAA/OAD was notified of the incident on May 7, 1987, by the Coast Guard Marine Safety Office, Alameda, and requested to go on scene and provide technical assistance regarding the possible hazard associated with this unknown substance in the San Francisco Bay Wildlife Refuge.

NOAA and the Coast Guard observed the material in the water, as well as the coating on the banks of the canal, and some had settled out where there were stranded puddles of liquid. Although ducks and other marine birds were observed swimming and diving in the area, no fish kill or other sign of impact was observed.

NOAA recommended that samples be taken and analyzed for cyanide and heavy metals, and that bioassays be taken before more water was allowed to flow into the refuge from this controlled canal. Sample analysis confirmed that the material was a biodegradable, non-toxic cleaning material that was not harmful to humans or the environment. NOAA then recommended that the canal be opened and drained into the refuge as its normal operating mode.

FINAL DISPOSITION OF THE INCIDENT

Hewlett-Packard took financial responsibility for the sample analysis, and the contractor was cited and fined. The Coast Guard closed the pollution case on May 8, 1987.

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NOAA Response Report

Southern Pacific Railroad
Oakland, California
May 8,1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 0934 on May 8,1987, the U.S. Coast Guard Marine Safety Office, Alameda, was notified by Alameda County health officials and the Oakland City Fire Department that a Southern Pacific Railroad boxcar filled with cotton bales and wrapped with 10-inch polyurethane packing had caught fire. Southern Pacific took responsibility for the incident and immediately unhooked the burning boxcar from the other cars and isolated it on the track. Fire departments from four neighboring cities hit the fire with a steady stream in an attempt to extinguish the blaze. Most response personnel wore self-contained breathing apparatus and protective clothing.

When the U.S. Coast Guard arrived on scene, an off-color plume billowing above the box car was moving in the direction of the wind. The fire departments continued to flood the compartment with water for several hours; after the flames were extinguished, the doors to the boxcar were secured and holes drilled into the ceiling. The compartment was then flooded with foam. A large fan directed the toxic smoke in a direction where it would have least impact to human health. Approximately 5,000 gallons of runoff water from the fire was allowed to enter the storm drains. Subsequent attempts were made to trace the storm drains flows to determine where they entered the bay.

NOAA RESPONSE

NOAA/OAD was notified of the incident on May 8, 1987, by the Coast Guard Marine Safety Office, Alameda, and requested to provide an analysis of the risk to human health of a toxic cloud with polyurethane and cotton. NOAA was also asked about evacuation possibilities and to recommend level of protection strategies for personnel being exposed for longer periods of time.

NOAA advised that all personnel in the 'hot zone' should wear self-contained breathing apparatus in addition to protective clothing. All non-essential personnel should be upwind and remain there until the incident could be brought under control. NOAA further recommended that the storm drains be bermed to prevent contamination of marine life located in Oakland's Inner Harbor.

Air and water samples contained elevated levels of nitrous oxide around the perimeter of the burning boxcar. Those levels diminished to background level downwind 200 meters from the boxcar. NOAA concluded that evacuation was not needed, but advised that personnel remaining in the hot zone without sufficient protection could suffer inflammation of the respiratory organs.

FINAL DISPOSITION OF THE INCIDENT

The boxcar remained closed for two days and was allowed to cool down before its cargo was unloaded. The U.S. Coast Guard closed this case on May 11, 1987, when no pollution was reported in Oakland Harbor.

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NOAA Response Report

Tug Challenger
San Luis Obispo, California
May 10, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 1805 on May 10, 1987, the U.S. Coast Guard Marine Safety Office, Alameda, was notified by Coast Guard Group Monterey that a mayday call had been received from the 85-foot tug Challenger that the tug was sinking and all on board were abandoning ship. The Challenger sank in approximately 50 fathoms of water. The fishing vessel Boggie Bay and the Coast Guard cutter Point Heyer picked up the four crewmembers, who were subequently taken to the hospital, where they were reported to be in good condition.

The Challenger had 18,000 gallons of #2 diesel fuel aboard and 150 gallons of lube oil. A slick was observed coming from the location of the sinking. The slick was estimated to be 2 miles by 250 yards wide and heading south.

NOAA RESPONSE

NOAA was notified of the incident on May 10, 1987, by the Coast Guard Marine Safety Office, Alameda, and requested to provide an analysis of the resources at risk and a trajectory for the spilled diesel and lube oil.

NOAA advised that the diesel and lube oil would follow the direction of the predominant wind because the currents in the area were in a state of transition. In the event of a total release of the fuel and oil, NOAA predicted that the oil would travel in a northerly direction at approximately .25 nautical miles per hour.

NOAA advised that overflights should be considered to determine if the sea otter range had been impacted. In addition, NOAA advised that migratory waterfowl might be in the area as well, although the more sensitive bird area appears to be northeast of the spill location and closer to the Monterey and Carmel coastline.

FINAL DISPOSITION OF THE INCIDENT

Subsequent overflights by the U.S. Coast Guard indicated no damage to marine wildlife. Because it was determined that cleanup was not possible, the case was closed on May 13, 1987.

Martin Jones Tug & Barge Company, the owner of the Challenger, and its operator, Viking Off Shore Company of Santa Cruz, have not decided whether to try and salvage the tug.

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NOAA Response Report

Tank Truck Spill
Discovery Bay, Stockton, California
May 18, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 1215 the U. S. Coast Guard Marine Safety Office, Alameda, was notified by the U.S. Environmental Protection Agency's (EPA) Technical Assistance Team (TAT) that a tank truck carrying approximately 5,000 gallons of anthraquinone acid and vanadium compound had overturned in Stockton. An estimated 500 gallons spilled from the ruptured tank and an unknown amount of the chemical entered a storm drain which leads to Italian Slough, which empties into Discovery Bay.

NOAA RESPONSE

NOAA/OAD was notified of the incident on May 18, 1987 by the Coast Guard Marine Safety Office, Alameda, and requested to assess the hazards of the spilled material. The California Highway Patrol, EPA, and the Stockton Fire Department reported to the scene.

NOAA advised that, since anthraquinone acid is biodegradable and soluble in water, the aquatic toxicity would be drastically reduced as natural mixing and flushing occurred as a result of the tidal action. NOAA recommended that the area where the storm drain enters the slough be sampled for a couple of days to determine toxicity and pH changes from background levels in the water. If more than 500 gallons reached the slough, NOAA recommended that the slough be closed for any recreational or commercial fishing until samples showed no signs of impact above background levels.

FINAL DISPOSITION OF THE INCIDENT

EPA assumed jurisdiction over the incident and had hired IT Corporation to clean up the spill. EPA will determine the violation against the spiller since the amount listed as a reportable quantity, per section 117.3 of Title 49 of the Code of Federal Regulations, was in question.

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NOAA Response Report

Halico Engineering Company
Oxnard, California
May 21, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 0740 on May 21, 1987, the U.S. Coast Guard Marine Safety Office, Alameda, was notified by the Coast Guard Marine Safety Division, Long Beach, of a white vapor cloud slowly moving offshore from an engineering facility in Oxnard. A Coast Guard patrol boat entered the edge of the plume, estimated to measure 100 feet by 200 feet, and reported that it had a distinctive smell of dead or mildewed organic matter. The cloud moved offshore very slowly.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 0800 on May 21, 1987, by the Coast Guard Marine Safety Office, Alameda, and requested to recommend safety precautions for response personnel, and provide chemical information.

NOAA recommended that any person working in the facility or responding to the incident wear self-contained breathing apparatus and skin protection until the material causing the plume was identified.

FINAL DISPOSITION OF THE INCIDENT

Halico Engineering Company, a magnesium recycling plant in Oxnard, was determined to be the source of the noxious plume. The plume contained ammonia, other negligible heavy gases, and sodium chloride mixtures. The cloud plume moved offshore and dissipated by 1100 on May 21. The incident was closed that evening.

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NOAA Response Report

M/V Norma
Pacific Ocean off Humboldt, California
May 31, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 0604 on May 31,1987, the Norma, a 234-foot general cargo vessel out of Panama, carrying a load of calcium silicate, as well as 20 tons of diesel fuel, and ten 55-gallon drums of lube oil, began taking on water. The vessel was approximately 40 nautical miles west of the mouth of the Klamath River, Humboldt, California. A mayday message was sent to the U.S. Coast Guard Group, Humboldt. The crew abandoned ship before the Norma sank at 0812.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 0608 on May 31,1987, by the Coast Guard Marine Safety office, Alameda, and requested to provide an analysis of the resources at risk and a trajectory of the spilled oil, as well as a trjectory should the remainder of the oil be spilled in a single release.

NOAA advised that the oil would remain on the surface and be driven by the wind. However, a wind shift or calming weatherwould move the slick south with the dominant current. NOAA further predicted that, even if all the oil on board the Norma were released at once, there would be no land impact.

In addition, NOAA advised that the primary resources at risk are the migration routes of marine mammals, plus the possibility of migratory waterfowl transiting the area. No cleanup was considered necessary because of the type of product spilled and the distance offshore. No marine mammals or migratory birds was observed during overflights.

CURRENT DISPOSITION OF THE INCIDENT

The Norma's owners did not take responsibility for the incident. The Coast Guard will continue to monitor the area of the sinking for further slicks. The case will remain open until a decision is made about handling the expected periodic release of oil from the sunken vessel. All of the personnel on board were safely rescued.

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NOAA Response Report

F/V Beverly J
Salt Point State Park, Bodega Bay, California
June 4, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 0520 on June 3, 1987, the U.S. Coast Guard Marine Safety Office, Alameda, was notified by Coast Guard Group, Bodega Bay, that the 45-foot fishing vessel Beverly J had run hard aground in Gerstle Cove, approximately 400 meters from an entrance to Salt Point State Park. The vessel had 200 gallons of number 2 diesel fuel on board. The vessel operator was rescued uninjured.

At daybreak on June 4, U.S. Coast Guard personnel arrived on scene and observed that the vessel had partially broken up, spilling about 100 gallons of number 2 diesel. There was a noticeable odor and sheen emanating north of the Beverly J for about 35-50 meters.

NOAA RESPONSE

NOAA/OAD was notified of the incident on June 4, 1987 by the Coast Guard Marine Safety Office, Alameda, and asked to advise on the effect of the spilled oil on the natural resources in the area, and provide trajectory information and possible mitigation strategies.

NOAA advised that number 2 diesel is considered toxic to aquatic organisms and could become a problem if the leak was persistent over a two- or three-day period in this sheltered cove area. However, because of the surf action and the rapid evaporation characteristics of number 2 diesel, there would most likely be little measured impact to the environmental organisms in the area.

NOAA recommended against booming off the fishing vessel and the entrance to the state park. Because of the chemical and physical characteristics of number 2 diesel, deploying booms and/or skimmers would be ineffective in capturing the oil. NOAA predicted that the oil would appear as a sheen emanating from the vessel on the surface in the direction of the prevailing winds.

FINAL DISPOSITION OF THE INCIDENT

The owner of the vessel agreed to take financial responsibility for the salvage and cleanup of the incident. IT Corporation, a cleanup contractor, was notified and told to stand by. On June 4, salvage commenced with the remaining diesel fuel being pumped into containers.

On June 5, with salvage complete, on-scene personnel observed no signs of sheen or enviromental impacts. The Coast Guard closed this as a pollution case the same day.

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NOAA Response Report

Nitric Acid Spill
Hayward, California
June 18, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

On June 18, 1987, a 55-gallon drum of nitric acid was punctured, and ruptured along a seam, spilling a portion of the nitric acid on the ground at a vacant building in Hayward, California. The fuming acid then leaked into a storm drain. Hayward City Fire Department, Alameda County health officials, Hayward City Police Department, and U.S. Coast Guard officials arrived on-scene.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1430 on June 18, 1987, by the Coast Guard Marine Safety Office, Alameda, and asked to provide a chemical assessment of the spilled material. NOAA was also requested to provide safety and health recommendations for response personnel during the clean up and disposal phase, and to calculate an evacuation zone.

NOAA advised that nitric acid is usually produced by the catalytic oxidation of ammonia. It acts as an oxidizing agent and fumes in moist air. Fuming nitric acid is considered toxic and is listed as an eye mucous membrane irritant and skin irritant. Ingestion causes abdominal tenderness, burning of the mouth, esophagus, and stomach. NOAA recommended that response personnel wear Level B protection with, as a minimum, self-contained breathing apparatus (SCBA) and splash gear with no skin areas exposed.

The area was cordoned off and a hot zone was established as 100 meters downwind of the spill. Rresponse personnel were advised to remain upwind of the fuming nitric acid. Copious amounts of water was used to cool down the drum and reduce the toxicity of the spilled acid.

FINAL DISPOSITION OF THE INCIDENT

A cleanup contractor was hired to clean up the soil and scrub the pavement. Normal operations resumed several hours later when cleanup was completed. The Coast Guard closed the case on June 19, 1987.

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NOAA Response Report

U.S. Steel Corporation Tosco Refinery
Pittsburg, California
June 24, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At Approximately 1910 on June 24, 1987, the U.S. Coast Guard Marine Safety Office, Alameda, was notified by Coast Guard Group, Concord, of a reddish-brown material being discharged from an outfall at the U.S. Steel Corporation's TOSCO Refinery. Coast Guard, California Department of Fish and Game, California Regional Water Quality Control Board, and county health personnel went on-scene.

The TOSCO plant supervisor was contacted and reported to the scene of the incident. The material was being discharged at a rate of 2400 gallons an hour directly into the San Francisco Bay.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1930 on June 24, 1987, by the Coast Guard Marine Safety Office Alameda, and requested to provide technical recommendations based on the physical descriptions of the material by the people on-scene. NOAA was also requested to provide a trajectory and safety and health recommendations.

NOAA recommended that responders approach the scene from upwind, wearing self-contained breathing apparatus and splash gear at a minimum, and take a sample of the material.

The plant manager provided the trade name, chemical name, and chemical concentration levels of the materia l being discharged.

FINAL DISPOSITION OF THE INCIDENT

Samples of the discharged materials were analyzed and later confirmed to be hydrochloric acid and iron oxide at the concentration levels within the guidelines of the NPDES permit issued to U.S. Steel by the Environmental Protection Agency. U.S. Steel took full financial responsibility for cost incurred as a result of this incident. The Coast Guard closed the pollution case on June 25, 1987.

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NOAA Response Report

F/V Elma H
Bodega Bay, California
June 25, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 1047 on June 25, 1987, the U.S. Coast Guard Marine Safety Office, Alameda, was notified by Coast Guard Group, Bodega Bay, that the 35-foot fishing vessel Elma H had lost power and washed up on the rocks in the surf zone just outside the entrance to Bodega Harbor. The Elma H had approximately 200 gallons of diesel fuel and a few gallons of lube oil aboard.

The two crew members were rescued from the wooden vessel, which had broken a seam and was taking on water. The Coast Guard arrived on-scene and noticed a light sheen emanating from the vessel. The Farallon Islands National Marine Sanctuary, California Regional Water Quality Control Board, and the California Department of Fish and Game were notified.

NOAA RESPONSE

NOAA/OAD was notified of the incident on June 25, 1987, by the Coast Guard Marine Safety Office, Alameda, and requested to provide a trajectory for the spilled oil.

NOAA indicated that the bulk of the diesel fuel would dissipate over the next 24 hours and the lube oil mixture could remain as much as two days. The spilled material would travel south along the surf zone for 200 meters and no further signs would be noticeable.

NOAA further indicated that the impact to the resources in the area would be minimal, although the University of California's Bodega Bay Marine Laboratory was notified of the incident because of the many biological research projects the laboratory conducts in the vicinity of the spill.

The Coast Guard Pacific Strike Team directed towing of the remains of the Elma H to the sand and light gravel Doran Beach, about 500 meters away. Attempts were made to offload the remaining portion of the fuel. The Pacific Strike Team pumped out the remaining fuel water mixture.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard closed the pollution case on June 26, 1987, when salvage crews had removed the remains of the Elma H from the rocks at Bodega Head.

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NOAA Spill Report

Simpson Paper Company
Eureka, California
July 7, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 1230 on July 7, 1987, the U.S. Coast Guard Marine Safety Office, Alameda, was notified by Coast Guard Group, Humboldt Bay, that an orangish, granular substance was observed coming from an outfall approximately 200 meters from Simpson Paper Company. The outfall emptied into the Pacific Ocean. The Coast Guard notified Simpson Paper Company, California Regional Water Quality Control Board, California Department of Fish and Game, and local county health officials.

NOAA RESPONSE

NOAA/OAD was notified of the incident on July 7, 1987, by the Coast Guard Marine Safety Office, Alameda, and requested to provide an analysis of resources at risk, a trajectory, and assistance in identifying the material.

FINAL DISPOSITION OF THE INCIDENT

Laboratory tests determined the substance to be a dinoflagellate, a chiefly organic, marine plant-like substance associated with red tide phenomena occurring off the West Coast and the Gulf of Mexico. The substance was determined is biodegradable and non-toxic to the surrounding marine environment.

The material was apparently taken in through an intake valve at the Simpson Paper Company and mixed with the normal pulp-processing residure from the pulp mill to form a slick about 200 meters wide and extending offshore approximately one mile.

The U.S. Coast Guard closed the case that afternoon at 1600.

NOAA Response Report

Simpson Paper Company
Eureka, California
July 23, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 2210 on July 22, 1987, the U.S. Coast Guard Marine Safety Office, Alameda, California, was notified that an unspecified amount of caustic soda was being discharged into Humboldt Bay from Simpson Paper Company in Eureka, California.

At 0700 on July 23, the Coast Guard dispatched personnel from Coast Guard Group, Humbodlt Bay, to the scene, where Simpson Paper Company officials confirmed the release. California Department of Fish and Game, California Regional Water Quality Control Board, and county health officials reported to the scene.

NOAA RESPONSE

NOAA/OAD was notified of the incident on July 23, 1987 by the Coast Guard Marine Safety Office, Alameda, and requested to provide a series of trajectory analyses and resources-at-risk scenarios. The purpose of the scenarios was to demonstrate to the chemical refineries and heavy industrial plants in the area the potential impact from a spill from one of their facilities.

Elevated pH levels of 12-14 were found in samples taken in the vicinity of the Simpson Paper Company outfall. Samples taken 100-200 meters from the outfall showed normal or no levels beyond background of pH. Observers on-scene found no evidence of biological impacts.

FINAL DISPOSITION OF THE INCIDENT

No discharge violation was filed against Simpson Paper Company. The Coast Guard closed the case on July 25, 1987.

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NOAA Response Report

Xerox Corporation
Newark, California
July 23, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 0807 on July 23, 1987, the U.S. Coast Guard Marine Safety Office, Alameda, was notified by the Xerox Corporation plant supervisor in Newark, California, that a generator fuel gauge had malfunctioned. As a result, a tank had overflowed, spilling an unspecified amount of diesel fuel into a drain which leads to a slough that is part of the greater San Francisco Bay Wildlife Refuge.

The Coast Guard notified the U.S. Fish and Wildlife Service, California Department of Fish and Game, and California Regional Water Quality Control Board. A sheen was observed near the Xerox corporation outfall.

NOAA RESPONSE

NOAA/OAD was notified of the incident on July 23, 1987, by the Coast Guard Marine Safety Office, Alameda, and requested to provide an assessment of the resources at risk.

After consultations with the U.S. Fish and Wildlife Service, California Department of Fish and Game, and Regional Water Quality Control Board, it was determined that the marsh grasses and the organisms in the marshlands would suffer minor disturbance.

No diesel was visible in the marsh on July 24. NOAA recommended that cleanup not be attempted, and predicted that 90% of the diesel would naturally dissipate within the next 24 hours.

FINAL DISPOSITION OF THE INCIDENT

A damage assessment was submitted to the Coast Guard by the U.S. Fish and Wildlife Service biologist who responded to the spill. At this writing no action has been taken against the discharger. The Coast Guard closed the pollution case on July 25.

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NOAA Response Report

USS Fort Fisher
Monterey Bay, California
July 27, 1987

Stewart McGee, Jr., Scientific Support Coordinato

INCIDENT SUMMARY

On July 27, 1987, the U.S. Coast Guard Marine Safety Office, Alameda California, was notified by Coast Guard Group, Monterey, of a diesel slick measuring about one mile long by 200 meters wide in Monterey Harbor. A local surfer, who swam through the diesel fuel, and complained of a headache, dizziness, and nausea, was treated by a physician.

The U.S. Coast Guard notified the California Department of Fish and Game, U.S. Fish and Wildlife Service, and Friends of the Sea Otter.

NOAA RESPONSE

NOAA/OAD was notified of the incident on July 27, 1987, by the Coast Guard Marine Safety Office, Alameda, and asked to analyze the resources at risk.

NOAA determined that surf and tidal action, combined with the rapid natural dissipation of the fuel oil, would minimize the impact to marine mammals, sea birds, and anadramous fish.

FINAL DISPOSITION OF THE INCIDENT

The spilled diesel was too weathered to be matched against a sample from the naval landing craft, U.S.S. Fort Fisher, the only ship in the area. A survey of the area taken 18 hours after the incident was reported failed to show any signs of the diesel. The Coast Guard closed the pollution case on July 28, 1987, when no further diesel was observed. Formal charges were not brought against the vessel.

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NOAA Response Report

Rhome Chemical Company
Richmond, California
July 28, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 2010 on July 28, 1987, the U.S. Coast Guard Captain of the Port, Alameda, California, was notified by the Richmond Police Department that a Rhome Chemical Company tank truck had hit an embankment and overturned in downtown Pittsburg. The truck was carrying two 20,000-gallon tanks of diesel fuel. The diesel tanks appeared to be intact, although a bank of machinery batteries had been crushed, resulting in a leak of approximately 15 gallons of battery acid (sulfuric acid). The tank truck driver was injured in the acident. The Richmond Fire Department reported to the scene.

NOAA RESPONSE

NOAA/OAD was notified of the incident on July 28, 1987, by the Coast Guard Captain of the Port, Alameda, and requested to provide a safety and health analysis of the incident and suggest a plan for the cleanup contractor, Way Power Trucking Company of Hayward, California.

The area was cordoned off by the local police and fire departments. NOAA immediately recommended that response personnel don self-contained breathing apparatus (SCBA) and protective clothing to rescue the injured driver of the truck. After donning SCBAs and protective clothing, water was sprayed on the overturned diesel tanks, and a sand berm was placed around the tanks to separate them from the crushed bank of batteries. The outsides of the diesel tanks were cooled with low velocity fog, and sand was used to absorb the sulfuric acid residue.

FINAL DISPOSITION OF THE INCIDENT

The truck driver was treated at a local hospital emergency room and later released. The tank truck owner took full financial responsibility for the incident. The Coast Guard closed the case at 2300 on July 28, 1987 when the main boulevard was reopened.

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NOAA Response Report

S/V Ruby II
San Rafael, California
July 29, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 2330 on July 28, 1987, the U.S. Coast Guard Vessel Traffic System received a Mayday distress call from the 45-foot sailing vessel Ruby II. The Ruby II radioed that she was taking on water very rapidly and that the crew was preparing to abandon ship. At 0030 on July 29, the vessel sank approximately .25 miles north of the Richmond-San Rafael Bridge in approximately 70 feet of water. The Coast Guard dispatched a 41-foot rescue boat from Yerba Buena Island and recovered the crew in the waters of the San Francisco Bay. The Ruby II was carrying an unspecified amount of diesel fuel when she sank.

The Coast Guard closed the shipping lanes at the Richmond-San Rafael Bridge until the Ruby II could be located. The sunken vessel's 45-foot high mast posed a threat to navigation for many of the deep-draft vessels that enter San Pablo Bay en route to the refineries in Benicia.

NOAA RESPONSE

NOAA/OAD was notified of the incident on July 29, 1987 by the Coast Guard Captain of the Port, Alameda, and requested to estimate the position of the sunken vessel.

To do the search, NOAA used a sidescan sonar leased from the U.S. Geological Survey (USGS), Menlo Park, and a platform provided by the U.S. Army Corps of Engineers. A visiting scientist at USGS interpreted the sonar scan printout.

CURRENT DISPOSITION OF THE INCIDENT

The sidescan sonar search surveyed the main shipping channels to first locate recent obstructions. A detailed search of the surrounding area was then begun to locate the Ruby II. Using NOAA's trajectory calculations, Coast Guard vessel with NOAA and USGS representatives on board located the sailing vessel about 300 meters east and out of the main shipping channel. A buoy was placed to mark the sunken vessel's location, and a local notice to mariners was sent out. The main shipping channel was then reopened for regular traffic. The Coast Guard Marine Safety Office intends to hold the Ruby II's owner financially responsible for the incident.

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Kelley, Terry, U.S. Geological Survey, Marine Electronics Division, Menlo Park, California, personal communication, July 29, 1987.

NOAA Response Report

Mystery Slop
Bolinas Bay, California
August 28, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 0940 on August 28, 1987, the U.S. Coast Guard Marine Safety Office Alameda, was notified of an oil slick smelling like hydrocarbons measuring approximately one square mile wide. The slick was approximately 1-1/2 miles offshore, midway between Duxbury Point and Rocky Point in Bolinas Bay, California.

The Coast Guard notified California Department of Fish and Game, U.S. Fish and Wildlife Service, Pacific Coast Federation of Fishermen's Association, and local research personnel at the University of California's Bodega Bay Marine Laboratory.

NOAA RESPONSE

NOAA/OAD was notified of the incident on August 28, 1987, by the Coast Guard Marine Safety Office, Alameda, and requested to provide a natural resources risk assessment, a spill trajectory, and advise on cleanup measures.

NOAA advised the Coast Guard that Bodega Bay represents an abundant variety of biological marine resources. Algae and kelp constitute the most conspicuous and visually rocky intertidal microbiota. Mussels and barnacles represent the macroinvertebrate species observed. Several species of marine birds were observed in the area of the spill. Harbor seals were also observed.

NOAA advised the Coast Guard to monitor the movement of the slick. Most of the oil should dissipate without significant shoreline impact.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard closed the case on August 29, 1987, when subsequent overflights showed little visual remains of the oil slick. No responsible party was identified.

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NOAA Response Report

Building 26, Coast Guard Island
Alameda, California
September 1, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 1305 on September 1, 1987, the U.S. Coast Guard Marine Safety Office, Alameda, California was notified by the Coast Guard base fire department that a contractor-owned crane had hit a culvert and overturned during warehouse construction at Building 26. The crane crushed a new vehicle and injured the crane operator, who was taken to a nearby hospital. The crane was carrying large commercial storage batteries; a hydraulic line broke when the crane overturned, spilling sulfuric acid from the batteries and several gallons of hydraulic fluid onto the ground. Some of the material entered a storm drain approximately 3 feet away.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1310 on September 1, 1987 by the Coast Guard Captain of the Port, San Francisco Bay, and requested to report on-scene and advise on health and safety issues and appropriate cleanup and disposal of the material.

The owner of the crane took full financial responsiblity for the incident and requested the Coast Guard's advice in cleaning up the sulfuric acid mixed with hydraulic fluid. NOAA reported on scene with the base physician, environmental health officer, and base fire department personnel. NOAA recommended that the incident area be cordoned off, and that self-contained breathing apparatus (SCBAs) and protective clothing be worn by cleanup workers. Absorbent pads were put down, the batteries were removed from the crane, the hydraulic line was repaired, and a dirt berm was placed around the storm drain. The absorbent pads, dirt, and debris were placed in drums lined with visqueen and properly disposed of.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard and NOAA determined that an insufficient amount of material entered the storm drain to cause an environmental problem. The case was closed on September 1, 1987.

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NOAA Response Report

Leslie Salt
San Mateo, California
September 9, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 0700 on September 9, 1987, the U.S. Coast Guard Marine Safety Office, Alameda, California was notified by Leslie Salt that one of its barges had sunk in approximately 50 feet of water 3 miles north of the San Mateo Bridge, 3.5 miles due east of Oyster Point. The 80-foot, steel-hulled barge had two 1,500-gallon diesel storage tanks, several 55-gallon drums filled with lube oil, 10 5-gallon containers of lube oil, and 30-50 gallons of paint on board. A slick was observed which measured approximately .6 miles long and by 100 meters wide. Leslie Salt took full financial responsibility for the incident.

NOAA RESPONSE

NOAA/OAD was notified of the incident on September 9, 1987 by the Coast Guard Marine Safety office, Alameda, and requested to provide an analysis of the resources at risk and a trajectory of the spilled oil, should the remaining product be spilled as a single, catastrophic release.

The primary resource at risk from the spill was the salt marsh harvest mouse, whose habitat is the marsh southwest of the spill site. The marsh lands near the Dumbarton and San Mateo Bridges are extremely environmentally sensitive. Migratory and resident waterfowl, primarily western gulls, were also endangered by the spill, although marine birds remained clear of the oil.

NOAA advised that the oil was being released at the beginning of a flood tide and would be carried south in a fairly coherent slick for 2-3 miles. The slick would then be expected to move back on itself and break up without impacting land. NOAA recommended booming strategies for deflection and collection of the surface oil. These recommendations were followed by the cleanup contractors. Monitoring the oil movement continued for several days after the barge was righted, refloated, and towed to the shipyard for repair.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard Marine Safety Office monitored cleanup operations. A cleanup contractor and a diving service were hired, and the Northern California cooperative, Clean Bay, was also called in. Boom was placed around the barge and acted as a containment barrier. Divers were unsucessful in determining the cause of the sinking, but were able to plug vent pipes that were vented to the outside of the barge's hull.

On September 11, a salvage company completed offloading the remaining cargo and refloated the barge. The remaining diesel, lube oil, paint, and other material were removed, and the barge was righted and refloated. The Coast Guard Marine Safety Office closed the pollution case on September 14, 1987.

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NOAA Response Report

F/V Western One
Moss Landing, California
September 10, 1987

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 1630 on September 10, 1987, the U.S. Coast Guard Marine Safety Office Alameda, California, was notified by Coast Guard Group, Monterey, that the 45-foot, wooden-hulled fishing vessel Western One had lost power and run hard aground on the beach approximately 1 mile south of Moss Landing, where it was starting to break up. The vessel had approximately 350 gallons of diesel, one 55-gallon drum of lube oil, and several five-gallon drums of lube oil on board. The three fishermen on board had abandoned ship. The owner of the vessel took financial responsibility for salvage of the vessel and possible cleanup as a result of the spill.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1700 on September 10, 1987 by the Coast Guard Marine Safety Office, Alameda, and requested to provide an analysis of the resources at risk and a trajectory for the spilled material.

NOAA determined that the area of the spill was highly sensitive. The primary resources at risk were seals, sea otters, and both migratory and resident waterfowl in the area. The fuel, released at the end of a flood tide, was expected to move south about 200 meters. If the remaining drums of fuel could be secured before the breakup of the vessel, the impact would be minimal. The forecasted 15-20 knot westerly winds would put the spilled material on the beach. However, with surf pounding and increased temperatures would help to minimize the land impact.

The Coast Guard notified the California Department of Fish and Game, the U.S. Fish and Wildlife Service, Moss Landing Research Laboratory, and Friends of the Sea Otter.

FINAL DISPOSITION OF THE INCIDENT

On September 11, a salvage contractor was hired and offloaded the Western One's remaining cargo of fish, as well as the remaining fuel. The smell of hydrocarbons around the vessel and sheen persisted south and into the surf zone along the coast for about 100 meters. No further envirnmental damage was noted by the Coast Guard, who closed the pollution case on September 12, 1987.

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NOAA Response Report

Barge Hana
Laau Point, Molokai, Hawaii
January 20, 1987

David Kennedy, Scientific Support Coordinator

INCIDENT SUMMARY

On January 20, 1987, an oil slick was sighted between the islands of Molokai and Lanai, Hawaii. The slick was reported to the Coast Guard Marine Safety Office (MSO), Honolulu. The Coast Guard confirmed the sightings and determined that the oil was coming from the barge Hana, which was under tow by the tug Cochise.

Investigation on the barge revealed that the aft hatch cover had been knocked off during heavy seas, spilling an unknown amount of Bunker C oil.

NOAA RESPONSE

NOAA/OAD was notified of the incident on January 20, 1987, by the Coast Guard MSO, Honolulu, and asked to provide trajectories for oil movement. NOAA's trajectories indicated the oil would move to the southwest with the prevailing tradewinds without impacting the Hawaiian Islands.

On January 21, the Coast Guard contacted NOAA to advise that oil had been seen offshore from Hanauma Bay to the Makapuu Point area on the island of Oahu.

It was determined that the initial coordinates given NOAA for the spill location were incorrect. Further, the density of the Bunker C oil was such that the oil would sink. NOAA revised its initial trajectories with this new information and transmitted this to the Coast Guard.

FINAL DISPOSITION OF THE INCIDENT

Oil continued to come ashore on Oahu until February 20, 1987. Several beaches were closed for periods of time and the majority of the cleanup was done manually. There was a minimum amount of biological impact, with the exception of some oiled birds.

NOAA Response Report

Chevron Pipeline
Waiawa Wildlife Refuge
Honolulu, Hawaii
May 18, 1987

David Kennedy, Scientific Support Coordinator

INCIDENT SUMMARY

At 1000 on May 13, 1987, Chevron Hawaii reported to the U.S. Coast Guard Marine Safety Office, Honolul, that 120,000 gallons of Jet A fuel had leaked from a ruptured pipeline. The pipeline ruptured over Waiawa Spring, a stream which drains into the Middle Loch of Pearl Harbor. The Jet A spread in Middle Loch and was driven to the southeast side of the Loch and into a mangrove swamp. Fuel was also pumped from a freshwater resupply system on Waiawa Spring into the U.S. Fish and Wildlife Service (USFWS) Waiawa Refuge established for endangered Hawaiian ducks and stilts. Approximately 40,000-60,000 gallons were trapped in the mangrove swamp. One Hawaiian duck and one Hawaiian stilt were killed at the refuge.

Chevron assumed responsibility for the spill and began cleanup. The Coast Guard Marine Safety Office, Honolulu, assumed a monitoring role.

NOAA RESPONSE

NOAA/OAD was notified of the incident on May 18, 1987, by the Coast Guard Marine Safety Office, Honolulu, and requested to ascertain whether a damage assessment might be appropriate for the site.

The NOAA Scientific Support Coordinator (SSC) arrived on-scene on May 19, reviewed the impacted areas, and met with USFWS, NOAA National Marine Fisheries Service (NMFS), Coast Guard, State of Hawaii, and Chevron personnel. Over the next four days, a monitoring plan was developed for a pre-assessment of damage to the area. NOAA's NMFS Western Pacific Program Office assumed lead agency responsibility for the preassessment and Chevron hired a contractor to conduct the monitoring plan.

FINAL DISPOSITION OF THE INCIDENT

Cleanup continued in the mangroves until mid-June. The Waiawa Wildlife Refuge is currently experiencing some hatching of chicks and the Refuge is off-limits to all but USF&WS personnel.

The pre-assessment is underway in the mangrove area and the Refuge will be assessed after newborn chicks are self-supporting. The initial assessment phase will not be completed until October or November of 1987.

NOAA Response Report

U.S. Coast Guard Base
Kodiak, Alaska
October 2, 1986

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

On September 24, 1986, the U.S. Coast Guard Base, Engineering Division, Kodiak, Alaska demolished an old warehouse on the base. The debris, including roofing tile material, was taken to the city dump the following day. This material was later discovered to contain asbestos fibers.

On September 26, the pile of debris at the dump caught fire. Strong gusts and high winds developed and carried ashes from the dump down wind. The Coast Guard Pacific Strike Team, requested to provide technical assistance on-scene, developd a sampling plan. Samples were taken to determine the amount of residual contamination in the surrounding areas after the wind died down and the fire was extinguished.

NOAA RESPONSE

NOAA/OAD was notified of the incident on October 2, 1986, by the Coast Guard Pacific Strike Team, San Rafael, California, and requested to determine the total area of contamination and advise on evacuation procedures. NOAA determined the length scale of the problem to be several miles, and further advised that, since dry asbestos does not stick to surfaces, what falls to the ground is easily resuspended. However, rain would trap the asbestos in sediments next to street curbs and other areas not washed by the rain.

NOAA further recommended that a sampling program be commenced fairly close to the dump and spread downwind toward the town, taking samples along the main road and near any food or cannery site. NOAA also contacted the National Institute of Health's Centers for Disease Control and U.S. Environmental Protection Agency and passed their recommendations on to the Pacific Strike Team.

CURRENT DISPOSITION OF THE INCIDENT

Monitoring and sampling will continue for possibly several weeks, before any final determination can be made on the effect of any residual contamination.

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NOAA Response Report

M/V Pieniny 2
Bering Sea, 300 Miles North of Adak Island
December 8, 1986

John Whitney, Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 2300 on December 6, 1986, the U.S. Coast Guard Marine Safety Office, Anchorage, was notified that an oil spill had occurred in the Bering Sea approximately 300 miles north of Adak Island. While conducting an at-sea refueling mission of another Polish fishing vessel, a tear apparently developed in the refueling hose of the M/V Pieniny 2, spilling an estimated 250 barrels of a heavy fuel oil.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1100 on December 8, 1986, by the Coast Guard Marine Safety Office, Anchorage, and requested to estimate the trajectory and fate of the spilled oil. Due to the remoteness of the spill and weather conditions of 16-20 knot winds and six-foot seas, it was immediately agreed that cleanup would be an impossibility. Furthermore, the Coast Guard was advised that natural dispersion and weathering processes would dissipate the oil before it could reach land.

FINAL DISPOSITION OF THE INCIDENT

In follow-up communications with the Coast Guard on December 16, it was learned that, despite Coast Guard efforts, no further communications had been established with the Pieniny 2. The case was closed on December 16.

NOAA Response Report

F/V Jamie Lynn
St. Paul, Pribilof Islands, Alaska
December 8, 1986

John Whitney, Scientific Support Coordinator

INCIDENT SUMMARY

On November 30, 1986, the 93-foot fishing vessel Jamie Lynn broke loose from its mooring at the St. Paul city dock during a heavy gale, smashed into rocks, and grounded 35 yards off West Dock landing. The vessel then shifted position and was swamped. By noon on December 2, its decks were awash in 2-4 foot seas with 25-30 knot winds. Fuel tanks believed to contain approximately 3,000 gallons of diesel presented a potential pollution problem. No oil was visible on the water, but a diesel odor was detected.

NOAA RESPONSE

NOAA/OAD was notified of the incident on December 8, 1986, by the U.S. Coast Guard Marine Safety Office, Anchorage. Since St. Paul Island is part of the Alaska Maritime National Wildlife Refuge system, the U.S. Fish and Wildlife Service was contacted to ascertain resources at risk. Subsequently, the Coast Guard was advised that a few sea otters might be affected, but that otherwise there was no cause for real concern. Furthermore, the Coast Guard was reinforced in their efforts to get the vessel refloated in order to remove the potential, pollution-causing fuel.

As of December 16, the fuel tanks seemed to remain tightly capped but were underwater, which made them inaccessible for pumping off the fuel. All the while the owner, who had no insurance, was attempting to dewater and refloat the vessel but failed due to insufficient pumping capacity.

FINAL DISPOSITION OF THE INCIDENT

On December 16, the Coast Guard placed a person on-scene to oversee the refloating operation and provided two more pumps to attempt to expedite the efforts and, subsequently, to remove the fuel. Due to the unsatisfactory dewatering progress of the vessel owner, the On-Scene Coordinator opened the Federal pollution fund on December 18 to hire a contractor to pre-stage pumps, boom, and pads at St. Paul in preparation for removing the fuel from the Jamie Lynn once it was refloated.

On December 20, members of the Coast Guard Pacific Strike Team and two Marine Safety Office, Anchorage arrived at St. Paul. Although adequate dewatering was achieved by December 23, in order to expose the fuel tanks, attempts to locate the oil for offloading proved futile. On-scene reports indicated that the oil was most likely released due to a hull fracture or hole suffered during or early after the initial grounding. All pumps and personnel were removed and the case was closed on December 24, 1986.

BIBLIOGRAPHY

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NOAA Response Report

Aleutian Islands National Wildlife Refuge
U.S. Navy Base Adak Island, Alaska
December 10, 1986

John Whitney, Scientific Support Coordinator

INCIDENT SUMMARY

On December 8, 1986, at approximately 1800, 27,000 gallons of JP-5 fuel overflowed a storage tank onto the tundra at the U.S. Navy Base on Adak Island. A portion of the fuel traveled 50 yards to a small stream and flowed approximately 700 yards downstream into a small boat harbor, where the fuel reached a National Wildlife Refuge.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1030 on December 10, 1986, by the U.S. Fish and Wildlife Service (USFWS). As the result of lack of direct jurisdiction over Department of Defense (DOD) facilities, however, the Coast Guard did not brief NOAA of the situation until December 12, 1986.

NOAA, USFWS, and the Coast Guard reviewed the Navy's mitigation and cleanup procedures, as well as the resources at risk. The Navy deployed boom and vacuum trucks, with what USFWS felt was insufficient boom, no skimmer, and inadequately trained on-site personnel. Biological species possibly attected included cormorants, sea otters, and Dolly Varden.

FINAL DISPOSITION OF THE INCIDENT

Weather conditions of freezing rain and snow with 25-40 knot winds hampered containment and cleanup operations. Nevertheless, the Navy deployed a boom in the samll boat harbor, and a vacuum truck picked up approximately 14,000 gallons of pure product from around the tanks, and 27,000 gallons of oily water from the small boat harbor. The USFWS reported that no birds or sea otters were oiled, although some fish were killed in the small boat harbor.

To the extent possible, the Coast Guard plans to conduct a follow-up investigation of this incident

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NOAA Response Report

Metallic Sodium Disposal
Whittier, Alaska
December 15, 1986

John Whitney, Scientific Support Coordinator

INCIDENT SUMMARY

On December 15, 1986, the Anchorage Fire Department was contacted by the Whittier Health and Safety Officer and asked to advise on the proper method of disposal of a one-pound, rusty canister containing sodium metal, found in a high school laboratory. The original source of the sodium was unknown.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1200 on December 15, 1986, by the Anchorage Fire Department Hazardous Materials Response Team, and requested to assist in the determination of the appropriate disposal advice. The hazardous materials specialist with the Alaska Department of Environmental Conservation (ADEC) was also notified.

Because Whittier is outside of the jurisdiction of the Anchorage Fire Department, ADEC and NOAA agreed to handle the incident. To learn more about the sodium canister, the Whittier Safety and Health Officer was contacted to provide labeling information from the canister. An industrial chemist with the material's manufacturer, EM Science of Cherry Hill, New Jersey, was contacted, but was unable to provide any specific disposal advice other than to advise checking with the local EPA and state environmental conservation organization to ascertain rules and guidelines. However, the chemist did confirm the dangerous nature of sodium metal, indicating that it is highly reactive in air and water ,with the strong possibility of spontaneous ignition when exposed to these elements.

Accordingly, the Whittier Safety and Health Officer was advised to avoid any bodily contact while a disposal solution was being sought.

FINAL DISPOSITION OF THE INCIDENT

ADEC contacted the U.S. Army Ft. Richardson Explosive Ordinance Division in Anchorage, which is experienced in detonating old munitions and small quantities of highly reactive chemicals, agreed to handle the disposal incident.

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NOAA Response Report

Swanson River Oil Field
Kenai Peninsula, Alaska
December 15, 1986

John Whitney, Scientific Support Coordinator

INCIDENT SUMMARY

On December 12, 1986, a large gas leak was discovered in one of four wells, shut down since 1984, which had been operated by Atlantic Richfield Company (ARCO) in the Swanson River Oil Field on the Kenai Peninsula. Two days after the initial gas leak from the drilling pad, gas was observed emerging through the ground in several locations within a one-half mile radius of the pad, including into the Swanson River. On December 15, the leaking gas got into an oil-bearing strata and expelled approximately five barrels of oil onto the surface of the drilling pad through the leaking well. Due to the number of gas fumaroles, the major concern was discharge of more oil, particularly into the Swanson River. The U.S. Environmental Protection Agency (EPA) On-Scene Coordinator (OSC) was notified on December 15.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1700 on December 15, 1986, by the EPA On-Scene Coordinator, and requested to provide technical and scientific support. NOAA was advised that ARCO was assuming full responsibility and was making plans to kill the leak. NOAA recommended that all possible interested parties be contacted, in particular, the Cook Inlet Response Organization (CIRO), which is responsible for providing immediate response equipment and support, and the U.S. Fish and Wildlife Service (USFWS), which manages a nearby National Wildlife Refuge.

FINAL DISPOSITION OF THE INCIDENT

With CIRO support, ARCO was able to establish two boom lines on the frozen Swanson River. A berm around the drilling pad contained the initial five barrels of oil. In the mean time, actions were in progress to send a "snubbing" tool into the well adjacent to the source of the leak, and to construct an alternate drilling pad from which a relief well might be drilled, if necessary. Snubbing efforts were successful, however, and the well was plugged and cemented above the gas source. The case was closed by EPA on December 31, 1986.

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NOAA Response Report

Barge Great Alaskan
Captain's Bay, Dutch Harbor
Unalaska , Alaska
December 22, 1986

John Whitney, Scientific Support Coordinator

INCIDENT SUMMARY

On December 22, 1986, a fire broke about aboard the barge Great Alaskan, a 499-gross ton, 150-foot fish processing barge owned and operated by Ursin Seafoods, Kodiak, Alaska, while the vessel was moored in Captain's Bay, Unalaska. At the time of the fire, the vessel was carrying 16,000 gallons of diesel fuel, three drums of gasoline, ten drums of oil, two 25-pound bottles of chlorine, 1500 pounds of ammonia in the barge refrigeration system, and ten 150-pound cylinders of ammonia stored separately from the refrigeration system.

Initially, the Dutch Harbor Fire Department and the tug Padilla attempted to extinguish the fire. In response to a reported ammonia leak, the Coast Guard Federal On-Scene Coordinator established a 1,000 yard safety zone around the OSI dock where the Great Alaskan was moored. At 1400 on December 22, the Coast Guard in Anchorage was advised by on-scene personnel that the fire was extinguished and smoldering. However, the fire reflashed one hour later and burned out of control. This time, the fire department allowed the vessel to burn rather than hazard personnel. At 1510, a major explosion occurred, resulting in a six- by eight-foot hole in the vessel's side above the waterline.

NOAA RESPONSE

NOAA/OAD was notified of the incident on December 22, 1986, by the Coast Guard notified NOAA that the incident had occurred, and requested to run the air model computer program to indicate the possible extent of the toxic plume. Using this information as a guide, the Coast Guard was able to make specific evacuation recommendations.

FINAL DISPOSITION OF THE INCIDENT

Initially, local officials had wanted to evacuate the entire town of Unalaska, located 5000 yards northeast of the burning vessel. As a result of NOAA's air model trajectory, however, the OSC advised that this was unnecessary.

The fire on the vessel abated over the evening of December 22, with some smoldering fires observed on the morning of the December 23. On December 24, the Coast Guard terminated the safety zone, but issued a notice to mariners to stay 100 yards clear of the vessel. The case was closed by the Coast Guard on December 29, after which the fire had burned itself out with no evidence of pollution or adverse effects to any personnel.

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NOAA Response Report

T/V Stuyvesant
Gulf of Alaska to Baja California
January 12, 1987

Stewart McGee, Jr., and John Whitney, Scientific Support Coordinators

INCIDENT SUMMARY

Between January 6 and January 12, the Standard Oil tanker, Stuyvesant, lost approximately 15,000 barrels of North Slope crude en route from Alaska to the Panama Canal Zone. During this period, the vessel had moved from a position approximately 300 miles west of Sitka, Alaska, to about 120 miles offshore central California.

The vessel had departed from Valdez at 0805 on January 6 and encounted severe weather from noon on January 7 through January 12. On January 9, the vessel was observed to be listing to starboard. Weather conditions prohibited tank soundings until three days later, at which time it was confirmed that the port wing tank had lost roughly 15,000 barrels of oil.

At 1300 on January 12, the U. S. Coast Guard Marine Safety Office, Alameda, California was notified by the Coast Guard Captains of the Port in Seattle and Anchorage of the incident.

NOAA RESPONSE

NOAA/OAD was notified of the incident on January 12, 1987 by the Coast Guard Marine Safety Office, Alameda, and requested to provide hindcast trajectories to ascertain whether the approximately one dozen oiled marine birds which had come ashore off San Francisco had been oiled by the Stuyvesant. The U.S. Fish and Wildlife Service, California Department of Fish and Game, and various other governmental and private agencies were notified because of concern for the humpback whale migration and the 100,000 plus overwintering seabirds that transit the area.

NOAA advised that, if the oil had been spilled before January 10, it would have been exposed to approximately three major storms, causing the oil to break up and disperse over a three-day period. However, if the spill occurred on or after January 12, small globules of oil and irridiscent sheen could conceivably be spotted from an aircraft. However, the oil would have been too far offshore to cause the oiling of the seabirds.

General information and trajectory information responses were also provided to Coast Guard District 17 Headquarters in Anchorage, the Bureau of Land Management's Minerals Management Service, the U.S. Fish and Wildlife Service, and the Alaska Department of Fish and Game.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard sent out two surveillance flights to attempt to locate the oil. The flights flew the entire trackline of the Stuyvesant from its origin out of Prince William Sound to offshore California. No evidence of the 15,000 barrels of North Slope crude was detected. The case was closed by the Coast Guard on January 20, 1987.

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Watabayashi, Glen, National Oceanic and Atmospheric Administration, Seattle, Washington, personal communication, January 13-15, 1987.

NOAA Response Report

Marathon Oil Company
Upper Cook Inlet, Alaska
January 19, 1987

John Whitney, Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 0930 on January 19, 1987, an open fuel tank valve was discovered on the crane helping to erect the Marathon Oil Company's Steelhead offshore platform in Upper Cook Inlet, Alaska. The open valve had allowed 151 barrels of diesel to enter Cook Inlet over an unspecified period, although no oil slicks or sheens were noted on the water in the immediate vicinity of the platform.

NOAA RESPONSE

NOAA/OAD was notified of the incident at approximately 1715 on January 19, 1987, by the U.S. Coast Guard Marine Safety Office, Anchorage, and requested to provide trajectory information on which to base possible surveillance overflights.

NOAA advised the Coast Guard that, given the natural dispersion characteristics of the spilled diesel fuel and the very high tidal current condition of upper Cook Inlet, there would be a very low probability that any evidence of the oil spill could be detected from an aircraft. As a result, surveillance overflights were not recommended. This evaluation was further supported by a contact with the Cook Inlet Response Organization (CIRO).

FINAL DISPOSITION OF THE INCIDENT

Shortly after the spill was noted, Marathon Oil Co. dispatched a helicopter overflight to attempt to locate slicks or sheens. A search around the platform vicinity, often hampered by snowy conditions and low visibility, produced no positive results by 1500 on January 19. No Coast Guard helicopter flights were dispatched and the case was closed on January 21, 1987.

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Watabayashi, Glen, National Oceanic and Atmospheric Administration, Seattle, Washington, personal communication, January 20, 1987.

NOAA Response Report

M/V Tempest
Unimak Island, Aleutian Islands, Alaska
January 28, 1987

John Whitney, Scientific Support Coordinator

INCIDENT SUMMARY

On January 28, 1987, an explosion occurred below decks on the M/V Tempest, a 297-foot fish processing vessel owned by Trident Sea Foods Corporation. The blast occurred in the engineering room, producing a one-foot by three-foot hole in the hull above the waterline and causing a loss of steering. Potential polluting agents on board included a large quantity of fuel, chlorine and ammonia. At the time the vessel was on the south side of Unimak Island with gale winds from the south and southeast.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1200 on January 28, 1987, by the U.S. Coast Guard Marine Safety Office, Anchorage, and requested to stand by should scientific support be required. As Unimak Island is part of the Alaska Maritime National Wildlife Refuge, NOAA contacted the U.S. Fish and Wildlife Service, which indicated that, at this time of year, there are no wildlife populations in the area to be affected by a spill.

FINAL DISPOSITION OF THE INCIDENT

Shortly after being notified of the incident, the Coast Guard dispatched the cutter Acona to the scene. The free-drifting Tempest was able to hold on its anchor chain six miles off land. In this location, the vessel effected sufficient repairs to negotiate to Sand Point, where permanent repairs could be undertaken. The cutter Acona checked the stricken vessel and escorted it to Sand Point. No cause for the explosion was immediately ascertained. The case was closed on January 29, 1987.

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NOAA Response Report

T/V Glacier Bay
Gulf of Alaska
January 31, 1987

John Whitney, Scientific Support Coordinator

INCIDENT SUMMARY

During the morning of January 31, 1987, the tanker Glacier Bay, transiting from Valdez to Nikiski, Alaska, lost its main boiler off the southern coast of the Kenai Peninsula. Heavy weather blew the tanker, with its load of 350,000 barrels of North slope crude, within four miles of Gore Point, adjacent to the rocky coastline of Kenai Fjords National Park.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1100 on January 31, 1987, by the U.S. Coast Guard Marine Safety Office, Anchorage, and requested to stand by should scientific support be required. The Coast Guard explained that the vessel had used its auxiliary generator to steam further out to sea, where it was trying to effect repairs on its main unit. Furthermore, a tug had been dispatched from Valdez to the site with midnight as its estimated time of arrival.

FINAL DISPOSITION OF THE INCIDENT

The crew of the Glacier Bay successfully repaired the main power unit and the vessel was able to come into Nikiski under its own power. No pollution occurred and the case was closed by the Coast guard on February 2, 1987.

NOAA Response Report

F/V Fukuyoshi Maru #86
Bering Sea Between Dutch Harbor and Pribilof Islands
February 9, 1987

John Whitney, Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 0235 on February 9, 1987, the U.S. Coast Guard Marine Safety Office (MSO), Anchorage, was notified that a major fire had broken out aboard the 499-gross ton, 170-foot Japanese fishing vessel Fukuyoshi Maru #86. The Fukuyoshi Maru #86 was about 60 miles northwest of Dutch Harbor when a propane tank explosion occurred in the galley. One crewman died and was left on board, two others were injured, and 25 crewmembers were transferred to a sister vessel, the Fukuyoshi Maru #8. The vessel had 66,000 gallons of diesel and 1,500 gallons of lube oil on board and, unmanned, was drifting in a northerly direction.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 0930 on February 9, 1987, by the Coast Guard MSO, Anchorage, and requested to advise on possible trajectories of the vessel and of any spilled product. The weather conditions predicted for the next several days would continue to force the vessel further offshore, and the Coast Guard was advised to monitor the situation.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard cutter Yocona was immediately dispatched to the scene, but was unable to assist in extinguishing the fire, which burned intensely for several days. No evidence of pollution was sighted. The Yocona was relieved by the Coast Guard cutter Boutwell on February 13, at which time the burning vessel had drifted to the northwest. The vessel was so badly burned that the owner decided against salvaging it. On February 14, the Boutwell, using its main gun battery, sank the vessel in over 1,000 fathoms of water.

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NOAA Response Report

T/B Callapooya
Hydaburg, Prince of Wales Island, Alaska
February 26, 1987

John Whitney, Scientific Support Coordinator

INCIDENT SUMMARY

Late in the evening of February 25, 1987, the T/B Callapooya, en route to Craig, Alaska from Hydaburg, Alaska, grounded in the Sukkwan Narrows across from Hydaburg. The grounding ruptured the number 1 starboard tank, releasing approximately 9,000 gallons of number 2 diesel, from a total tankage of 289,000 gallons. The spill occurred on a rising tide and was initially carried north by the strong tidal current action. On the reversing tidal current, the diesel was carried directly over rich subsistance clam beds just offshore from Hydaburg. The clam beds are the source of cockles, butter, horse, double-neck and razor clams. Eventually, the current carried a sheen 6-7 miles southeast into Hetta Inlet. The barge was owned by Halverson Towing, who assumed full responsibility for any clean-up operations.

NOAA RESPONSE

NOAA/OAD was notified of the incident at approximately 1000 on February 26, 1987, by the U.S. Coast Guard Marine Safety Detachment (MSD) in Ketchikan, and requested to provide a trajectory for the spill and to analyze resources at risk.

NOAA advised the Coast Guard that a definite sheen could be expected; however, this sheen would rapidly disperse and feather out, with this behavior being accentuated by tidal current and wind conditions. As the tide fell, small but noticeable "bathtub rings" would occur on the shoreline and associated rocks. However, these marks would probably wash off after a few tidal cycles.

The diesel spill would have little effect on natural resources because few fish and sea birds are in the area at this time of the year. However, there was some possibilty that ingestion of oil and subsequent short-term tainting of the subsistence clams may occur. Nevertheless, the strong currents in Sukkwan Narrows would reduce the exposure time and rapidly dilute the diesel; this is not the reproductive time of year when the new clams would be in the water column; and clams tend to cleanse themselves of foreign substances within days or weeks, depending on the amount ingested. Close communications were maintained with the Alaska Department of Environmental Conservation (ADEC) throughout the incident.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard On-Scene Coordinator directed the Callapooya southeast to Hetta Inlet where the number 1 starboard tank was pumped into the number 4 tank. A tank barge was dispatched from Ketchikan to further offload oil from the damaged barge. Heightened concern by the people in Hydaburg over the oiled clam beds invoked an on-scene show by personnel from the ADEC. ADEC took several sediment samples on the oiled clam beach to measure the amount of oil incorporated into the sediments. ADEC issued an advisory that no one should eat the

clams until the results of the sample analysis had been received. The oil was allowed to dissipate naturally and the case was closed on March 2, 1987.

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NOAA Response Report

F/V Birgit
Ulak Island, Aleutian Islands
March 9, 1987

John Whitney, Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 1130 on March 8, 1987, the Birgit, a 120-foot crabbing vessel, ran aground on the rocky western side of Ulak Island, Amchitka Pass, causing extensive damage to the vessel. Initial reports indicated that less than 300 gallons of diesel fuel had been spilled.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 0930 on March 9, 1987, by the U.S. Coast Guard Marine Safety Office, Anchorage, and asked to provide trajectory, resources-at-risk, and weather information. Consultation with the NWS in Anchorage indicated quite variable wind and weather conditions, thus making fuel trajectory forecasts difficult and unreliable.

By March 12, the salvage crew, Underwater Construction, reported that the vessel had been abandoned, with the crew to arrive in Adak on March 13, and 70% of the 18,000 gallon-fuel capacity had been lost. A U.S. Coast Guard overflight on March 13 reported that the vessel remained hard aground on a rocky ledge 100-200 yards off the beach with a 15 degree starboard list and a light oil sheen up to 3/4 mile long observed.

The U.S. Fish and Wildlife Service (USFWS) reported that, by mid-April, an estimated 500 sea otters and 7,000 birds (gulls, cormorants, and puffins) would be in the area. USFWS recommended three possible courses of action to remove the oil: 1) removing the fuel, 2) burning the fuel in place, or 3) during a favorable wind, blow the tanks and release all the fuel at once.

FINAL DISPOSITION OF THE INCIDENT

When it was decided that it was impossible to salvage the Birgit, the vessel was detonated with explosives, causing the remaining fuel to burn. The case was closed on April 21, 1987.

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NOAA Response Report

F/V All Alaskan
St. Paul Island
Pribilof Islands, Bering Sea
March 20, 1987

John Whitney, Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 0800 on March 20, 1987, the All Alaskan, a 350-foot fish processing vessel, was blown aground by gale force winds on St. Paul Island in the Pribilof Islands. The vessel carried 141,000 gallons of diesel fuel; 2,500 gallons of hydraulic, lube, and waste oil; cylinders of freon and chlorine gas; and 500,000 pounds of crab. Gale force winds continued for several days, driving the vessel hard aground and burying it in 7-10 feet of sand. The initial grounding ruptured two of the twenty-odd fuel tanks, releasing from 10,000 to 20,000 gallons of diesel which was never detected in the environment.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1000 on March 20, 1987, by the U.S. Coast Guard Marine Safety Office, Anchorage, and requested to provide information on resources at risk from a spill. When the issue of tundra damage was raised by the city of St. Paul, the OSC requested that NOAA obtain a tundra restoration expert. On March 26, the OSC, NOAA, and the tundra expert flew out to St. Paul Island to assess the situation. The tundra disruption in question proved to be a beach berm which would naturally restore itself.

Following the resolution of the tundra issue, a new plan for removing the fuel was devised by running a pipeline along the shoreline approximately one mile to a major road where bladders would receive the fuel. As the fuel transfer operation would take a couple of weeks, the OSC requested that NOAA submit a spill contingency plan. The Coast Guard became concerned about emanations of noxious amounts of methane and hydrogen sulfide as a result of the decomposition of the All Alaskan's crab cargo. NOAA reported that the problem was probably of minimal concern, unless the temperature rose significantly above the ambient conditions of around 30°F.

FINAL DISPOSITION OF THE INCIDENT

By April 14, all of the fuel (approximately 120,000 gallons) had been removed from the vessel and transferred to permanent tanks on St. Paul Island for the use of the natives. With the vessel still buried in beach sand, the case was closed on April 21, 1987.

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NOAA Response Report

M/V Honan Ace
Prince of Wales Island, Alaska
April 15, 1987

John Whitney, Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 1500 on April 15, 1987, the Honan Ace, a 570-foot Japanese log freighter carrying 300,000 gallons of bunker fuel, was blown onto the rocks at Dora Bay on the east side of Prince of Wales Island, Alaska. Gale winds of 60-80 knots broke the mooring buoy and pushed the stern onto a rocky shoal in the intertidal zone, while two tugs held the bow into the wind.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1700 on April 15, 1987, by the U.S. Coast Guard Marine Safety Office, Juneau, and requested to provide a resources-at-risk appraisal should a release occur. NOAA contacted the National Weather Service and learned that high winds would probably continue throughout the night and next day, making any kind of an effective response extremely difficult. Consultation with the U.S. Fish and Wildlife Service and the Alaska Department of Fish and Game revealed minimal resources at risk.

FINAL DISPOSITION OF THE INCIDENT

On the next high tide, the vessel refloated and was easily towed away from the rocky shoreline. The vessel's bottom had a 30-foot dent and a 12-foot gash which was six inches wide at the widest point. The double-bottomed hull prevented a major pollution incident; only a slight ribbon of a sheen was observed. The log cargo was offloaded at Dora Bay, and pumps were obtained from Seattle to pump out the bunker. The vessel retreated to Ketchikan where damage to the hull was evaluated. The case was closed on April 21, 1987.

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NOAA Response Report

F/V Tae Woong
Uliaga Island, Aleutian Islands, Alaska
May 6, 1987

John Whitney, Scientific Support Coordinator

INCIDENT SUMMARY

At about 0630 on May 6, 1987, the Tae Woong, a 210-foot, 1,500-ton South Korean fishing vessel carrying approximately 105,000 gallons of diesel and some drums of lubricating oil, ran aground on the east side of Uliaga Island, part of the Aleutian Islands National Wildlife Refuge. One tank was ruptured upon grounding and was leaking at a rate of over 1,000 gallons per hour. The U.S. Coast Guard cutter Rush removed the 49-member crew. Because the vessel was hard aground on the rocks, salvage appeared not to be feasible. An extensive oil sheen was observed around the vessel extending for approximately 2 miles. Underwater Construction Co. was hired by the owner to evalute the situation and affect any remedial action.

NOAA RESPONSE

NOAA/OAD was notified of the incident at approximately 0800 on May 6, 1987, and requested to provide trajectory, environmental sensitivity and weather support information.

NOAA advised the Coast Guard that the diesel fuel would present only a short range problem, on the order of 1/2 to one mile, and would disperse rapidly with strong winds. The U.S. Fish and Wildlife Service indicated that, at this time of year, there were limited numbers of sea otters, sea lions, ducks, geese, and some king and tanner crab. However, as the spring advanced, more species and greater numbers of waterfowl and marine mammals could be expected in the area. Uliaga Pass, to the southeast of Uliaga Island, is one of the main flyways through the Aleutian Chain and, as such, had the potential of thousands of waterfowl in the area. However, most on-scene reports reported only limited numbers of ducks and geese, who seemed to be unaffected by the diesel spill.

FINAL DISPOSITION OF THE INCIDENT

As the vessel was determined to be unsalvageable, it was decided that the best course of action to remove the ongoing pollution source was to detonate and burn the remaining fuel on board the Tae Woong. This was carried out on May 13 by Underwater Construction Co., observed by the Alaska Department of Environmental Conservation, Coast Guard, Alaska Department of Fish and Game, and the U.S. Fish and Wildlife Service.

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NOAA Response Report

F/V Pavlof
St. Paul Island, Bering Sea, Alaska
May 7, 1987

John Whitney, Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 1200 on May 7, 1987, the Pavlof, a 165-foot crabber and fish processor owned by Trans-Pacific Seafoods in Seattle, ran aground on the eastern shore of St. Paul Island, Alaska, on an incoming tide. Six crew members and 20,000 gallons of diesel fuel and lube oil were on board, but no pollution was reported. The U.S. Coast Guard cutter Rush was dispatched to the scene from Dutch Harbor.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1330 on May 7, 1987, by the Coast Guard Marine Safety Office (MSO), Anchorage, and requested to provide an analysis of resources at risk from a spill, and weather information support.

NOAA's Outer Continental Shelf Environmental Assessment Program (OCSEAP) office and the National Marine Fisheries Service informed the Coast Guard that the vessel grounding was only a few hundred yards north of a major fur seal rookery. However, only a portion of the male seals had yet arrived, and they were probably in the process of staking out beach plots (and so would not be in the water where they could be oiled). The females would not be arriving until June. NOAA advised that shifting weather conditions would prevent pollution affecting the rookery.

FINAL DISPOSITION OF THE INCIDENT

The Rush and another fishing vessel successfully towed the Pavlof off the beach at 0130 on May 9. The fuel tanks were intact, and there was no indication of oil pollution.

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NOAA Response Report

T/V Glacier Bay
Kenai, Cook Inlet, Alaska
July 2, 1987

John Whitney, Scientific Support Coordinator

INCIDENT SUMMARY

At 0334 on July 2, 1987, the tanker vessel Glacier Bay grounded and suffered hull damage south of the mouth of the Kenai River while en route to Nikiski from Valdez to unload approximately 16,380,000 gallons of North Slope Alaskan crude oil at the refinery. Initial reports indicated that 10-15 barrels (420 to 1,600 gallons) of oil had been lost.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 0600 on July 2, 1987, by the U.S. Coast Guard Marine Safety Office, Anchorage. At 0830 on July 2, the Coast Guard reported that an additional 100 to 400 barrels (4,200 to 16,800 gallons) of oil had been released as the vessel attempted to move into deeper water and to pump oil into undamaged tanks. Continuing leakage was reported to have subsided to a light sheen, and the damaged tanks had reportedly been emptied. NOAA was requested to provide a trajectory analysis and resources at risk characterization for oil spilled to that point in time.

NOAA/NOAA identified the red salmon fishery in Cook Inlet as the major natural resource of concern, since the salmon run peaks in mid-July. NOAA provided an initial trajectory forecast, based upon the owner's estimate of oil spilled and the source being located south of the Kenai River. Given the strong currents and relatively small amount of oil, NOAA predicted small impact: the oil would oscillate north and south and gradually come ashore on the east side of the Kenai Peninsula. When oil was subsequently observed in offshore rip currents, NOAA predicted that small tarballs would be formed and washed ashore in minor amounts.

The Regional Response Team determined that the ship should be moved to Nikiski for offloading. The responsible party assumed cleanup responsibility and contracted with the Cook Inlet Response Organization (CIRO) to manage cleanup operations. At approximately noon on July 2, CIRO requested permission to disperse the spilled oil; the request was denied based on existing dispersant use guidelines for the Cook Inlet region. In the following days, CIRO continued to conduct cleanup operations and assessment surveys; however, the strong currents, debris, and the oil's viscosity confounded their efforts, resulting in little effective cleanup.

On July 8, conversations between NOAA and the USCG On-Scene Coordinator (OSC) indicated that additional technical assistance was needed on-scene. By the evening of July 8, four additional NOAA staff had arrived in Kenai to assist NOAA's Scientific Support Coordinator (SSC) who had been monitoring the situation with the OSC and the Alaska Department of Environmental Conservation. During the day, the estimate of the amount of oil spilled was increased substantially to 130,200 gallons.

On July 9, the Coast Guard declared the spill to be major (i.e., greater than 100,000 gallons) and assumed control of the spill due to dissatisfaction with the spiller's efforts and evidence that much more oil had been spilled than the owner had reported.

Over the next several days, NOAA staff established an electronic communications system so that all concerned parties would have immediate and consistent information; began systematic overflights of the area from Homer to Anchorage, where oil had been reported; and provided integrated maps of oil sightings from each day's overflights. NOAA also conducted extensive oil weathering, floating, and sinking experiments to better characterize the nature of the spill problem. NOAA also continued to provide trajectories and predictions on the oil behavior, based upon tidal and current information and the overflights. NOAA also worked to facilitate the flow of information between the governmental agencies responding to the spill, resulting in nightly debriefings of each agency's daily activities. Finally, the OSC was provided with answers to questions he might be posed by the press, and a summary of the amounts of oil remaining in the water and along the coast was provided. As of July 16, all NOAA personnel, except the SSC, had returned to Seattle.

FINAL DISPOSITION OF THE INCIDENT

Cleanup operations were extremely difficult because of the 4-6 knot currents. The oil tended to accumulate in rip currents and to be carried down with small flotsam and jetsam. Several times oil was boomed, and then "disappeared" before it could be collected—and reappeared hundreds of yards away, due to the rip currents.

Estimates of oil slicks and amounts were exceedingly difficult prior to July 8 because of the lack of trained observers on-scene. This is a typical problem in oil spills, and results in dissemination of misleading information.

The spiller originally assumed responsibility for the spill. However, cleanup personnel did not arrive on-scene until two days after the spill was reported and their operations were not generally effective.

The oil spill occurred during a major fishing season, the red salmon fishery, involving set netters, drift netters, and dip netters. The Alaska Department of Fish and Game closed part of the fishery north of Nikiski concentrating the fishermen where the bulk of the fish happened to be, resulting in extremely large catches. The following day, another area was opened to gill netters, but after opening briefly, had to be closed due to additional reported oil sightings. Besides the disappointment of expectant fishermen, some nets were oiled and the fish canneries were reluctant to purchase because some fish were oiled.

In conclusion, the spill was not severe in the usual sense—there was very little oiling of the beaches, four birds were reported dead, and the area is a high energy environment and so will cleanse itself rapidly. Several beluga whales were sighted, but no oil effects were apparent. The major problem has been temporary dislocation of the fishery and the confusion caused by erroneous initial reports on the magnitude of the spill.

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NOAA Response Report

M/V Princess Kathleen
Juneau, Alaska
September 10, 1987

John Whitney, Scientific Support Coordinator

INCIDENT SUMMARY

On September 9, 1987, the U.S. Coast Guard Marine Safety Office (MSO) in Juneau, Alaska was notified that a local diver's had been heavily coated with oil after investigating the sunken wreckage of the M/V Princess Kathleen. The Princess Kathleen, a 350-foot cruise ship, sank in 1952 off Lena Point, approximately 10 miles northwest of Juneau. Although the diver saw no oil, it was rumored that there could still be as much as 80,000 gallons of oil aboard the vessel.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1000 on September 10,1987, by the Coast Guard MSO, Juneau, and asked to stand by for further trajectory and resources-at-risk information.

NOAA advised the Coast Guard that the Princess Kathleen has become both a common diving target and an excellent fish habitat.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard MSO, Juneau, will be conducting investigations on this case for the next several months.

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