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WINTER STORM SEVERITY INDEX

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We would like to propose the establishment of a winter storm severity index for the National Weather Service. Presently, there is no system to compare the severity of one storm to another. By establishing an easy step-by-step method to determine a severity index to each storm, NWS offices could rank each storm and compare them with previous storms.

The NWS has adopted the Fujita tornado scale to rank tornadoes. It uses wind speed and hail size to rank severe thunderstorms. We also have determined what amounts of precipitation in time frames make up heavy rains (excessive precipitation). But, no ranking system exists for winter storms.

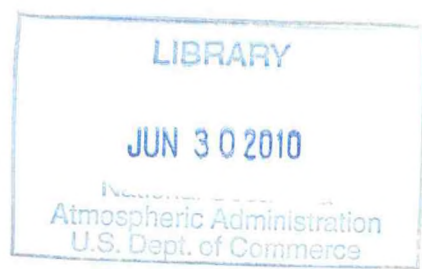
The attached worksheet is our proposed method for each NWS office to determine their own winter storm severity indices. It is based solely on MF1-10A and 10B data which are readily available at most NWS offices. It is only slightly subjective; therefore, two different individuals reviewing the same data should not differ very much in their final totals.

It should be emphasized that this proposed index applies to a relatively small region like a metropolitan area. The development of an index for all of the winter weather associated with a major system over a large area would be much more complex and is not dealt with here.

We have considered the problem of "what is severe in Arkansas is not severe in the Dakotas." While northern states may have their highest indices in the high 20's and southern states in the teens, they could still rank storms for comparison purposes in local climatological records.

The assignment of "points" is arbitrary and no doubt considerable discussion would result before an NWS-wide "official" index could be adopted.

Using the attached worksheet, the following are the five most severe winter storms to occur in Des Moines since 1951:



	Severity Index	Dates
1.	26	January 2-4, 1971
2.	25	April 8-9, 1973
3.	23	November 30-December 1, 1985
	23	March 10-12, 1951
5.	20	February 1-3, 1983

It should be noted that this winter storm severity index is not a new idea. The May 1985 issue of the National Weather Digest addressed the subject in an article entitled "Snow Study," authored by William W. Dovico, NWS Allentown, PA. Our proposal is a simplified version which we believe is necessary if the index is to be used by all NWS offices.