## The WSR-88D and Public Health

The National Weather Service (NWS) has introduced a new state-of-the-art Doppler weather surveillance radar (WSR-88D), also known as the Next Generation Weather Radar (NEXRAD), as part of its multi-billion dollar modernization program. A major goal of this program is to improve the timeliness and accuracy of warnings and forecasts. The WSR-88D excels at detecting severe weather events that threaten life and property. Some residents living near NEXRAD sites have expressed concern regarding potential health effect from the radio-frequency signals emitted by the radar. Protecting life and property is the primary mission of the NWS; the WSR-88D has been designed and will be operated with the safety and welfare of all Americans as the highest priority.

Several voluntary standards have been developed to assure that electromagnetic emissions will not pose a health risk. In the U.S., three widely accepted standards are the 1986 standard of the National Council on Radiation Protection and Measurements (NCRP) the 1992 standard of the American National Standards Institute (ANSI) and the Institute of Electrical and Electronics Engineers (IEEE) and the 1997 Federal Communication Commission (FCC) Code of Federal Regulations.

The NCRP is a corporation chartered by Congress to "develop... recommendations about... radiation measurements, quantities, and units, particularly those concerned with protection...." The ANSI/IEEE have been conducting research and setting standards for 30 years culminating in the 1992 standard established by a committee of 125 leading experts including physicians, scientist, and engineers from academia, industry, and government. The FCC is an independent United States government agency, directly responsible to Congress and is charged with regulating interstate and international communications by radio, television, wire, satellite and cable. All three of these are conservative and scientifically based standards that recommend maximum permissible levels of energy emissions well below levels that could conceivably cause harm. The energy transmitted by the WSR-88D is orders of magnitude lower than the energy levels permitted by either standard.

The diagram on the reverse side of this fact sheet depicts common sources of radio-frequency signals compared to these safety standards. The diagram shows the radar's emissions to be at least 10,000 times below the three standards.



## Radio-Frequency Signal Levels from Common Sources Compared to Safety Standards

