

Known Issues/Problems with the SSM/I Level 1C Data (Version 2005)

- 1. Sensor orientation:** In the DataDescription attribute of the Level 1C files it is specified that the Earth observations are taken when the sensor is pointed in the aft direction. This is in fact only true for SSM/I F8. The other SSM/I sensors (i.e. F10, F11, F13, F14, and F15) are all forward looking sensors. This also means that the SCorientation variable, which is set to 180 in version 2005, is incorrect. With the exception of F8, the correct value for the SCorientation is 0.
- 2. Spacecraft ephemeris:** The ephemeris data stored in the variables SClatitude, SClongitude, and SCaltitude is incorrect. The time tags on the ephemeris data stored in these variables does not match the scan times. As a result, the ephemeris information corresponding to the spacecraft location may be as much as 5 seconds, or more, before or after the corresponding scan time. This means the spacecraft position information is likely off by tens of kilometers or more.
- 3. Relation between the swaths:** In DataDescription, the introduction section labeled "RELATION BETWEEN THE SWATHS" is inadequate and will, in the next version, be replaced by the explanation currently shown in the file specification.