UTC.

3.2.3 *Reference Systems*

Reference systems used in this document and the ICA PDS data:

Reference system	Description
Instrument coordinates	THE ICA instrument coordinate system. Retained for consistency with calibration report. Aligned with spacecraft Cartesian coordinate system, but different definition of the axes.
Spacecraft coordinate system	Orientation: x: pointing from the LANDER to the s/c center, perpendicular to solar array axes; y :parallel to solar array axis; pointing to the left, when standing in front of the Lander, z: pointing up

3.2.4 *Other Applicable Standards*

N/A

3.3 Data Validation

Data will be scanned for internal consistency when decommutating to edited raw format. Derived data will when possible be compared to independent measurements by other instruments. The solar wind is particularly useful as it is a narrow beam which, when at all within the field-of-view, is typically fully measured by ICA. When changes are made to one of the RPC ion spectrometers (ICA and IES), such as changing the MCP bias, this can be made when both instruments have the sun (solar wind) in the field-of-view. That way the relative change of the sensitivity can be estimated.
Before archiving a data set from some mission phase, this set will have been used internally by RPC scientists. It is planned to base all scientific analysis on the data products formatted. To actually have the data used by scientists before delivery to archive is considered the best way of revealing problems, and this is the approach taken by RPC.

In the label a QUALITY_ID keyword is used to indicate the quality of the data. As this is raw data, we provide an indicator of possible problems, using two digits, one for instrument temperature and one for instrument background levels. No known problems are identified with 00.

Low instrument temperature leads to a drift of the low energy channels of the instrument. Below about 13 °C this may happen. The effect is pronounced and a clear problem below about 0 °C. We therefore set the temperature flag to1 if more than 5 temperatures readings in an hour are below 13 °C, and to 2 for at least 5 temperature readings below 0 °C. The number 5 is arbitrary, but a number larger than 1 reduces the influence of noise and erroneous temperature readings which may occur just after startup.

Similarly, low instrument temperatures may lead to enhanced noise, as can lack of on board background subtraction and sometimes EUV light can enter the instrument. Therefore the highest energy channels are used to monitor the noise level as it is in the delivered raw data. The noise flag has, like the instrument flag, 3 levels, where 0 means no known problem, 1 is elevated levels and 2 means significantly elevated levels. The averaged background level over the 1 hour interval is used.