# NASA

### TReK 5.3.0 Software

## The TReK 5.3.0 Software Release will contain the following updates:

- Safety Conditional KulP Services (SCKIPS) Updates to TReK CFDP Software
  - Hazardous commands are recorded in a file.
  - A hazardous command file is transferred to a payload using CFDP configured to encrypt and decrypt CFDP's Protocol Data Units (PDUs) and includes an encrypted timestamp.
  - Encryption provides confidentiality, authenticity and integrity.
  - An encrypted timestamp provides replay resistant time authentication.
  - The PEP Ethernet interface provides the ability to monitor SCKIPS's health and status information.

#### E-Mail and Text Capabilities

- Includes an Application Programming Interface (API) that supports programmatically texting a message, e-mailing a message, or e-mailing a file to one or more recipients.
- Includes a drop box capability that supports texting a message, e-mailing a message, or e-mailing a file to one or more recipients.
- Includes the capability to configure for application specific alerts via e-mail or text. For example, the HOSC Login application can be configured to send a text or e-mail if the connection between TReK and the HOSC is lost.
- Example Usage Scenario: Payload uses CFDP to send a file to a ground e-mail dropbox which e-mails the file to one or more recipients.

#### Generate GSE Packets

- This capability can be used to retransmit data processed by TReK.
- The GSE packet will be formatted as defined in the PGUIDD (SSP-50305).
- Users can define a GSE packet, export the metadata definition for the GSE packet, and manage the transmission of the GSE packet.

#### Parameter Extraction

Extract parameter values from incoming data and write them to a file.