Updating VAGC State Vectors Via VAGC State Vector Update Spreadsheet

1 [CNTRLS]

Open the quick saved state with a text editor Save a quick save state of Orbiter

RPOS, RVEL and EMEM0024-0025

Enter These Values into the Blue fields in the State Vectors

Tab of the spreadsheet

RPOS: Orbiter Position State Vector

Optional: to observe the latest state vector in the VAGC RVEL: Orbiter Velocity State Vector EMEM0024-0025: Current VAGC Mission Time

copy the following EMEM locations to the Blue fields in the

State Vectors Tab of the spreadsheet

spreadsheet. These will be entered into the AGC. Observe Green Fields in State Vector Tab of the

Block Update P27

V71E

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Enter Data

FV21N01 R3:00304

XXXXE

4

For R3 from 00304-00324 enter corresponding data as indicated next to green fields in State Vector Tab of the spreadsheet. For 00306 use value based on parameter

77776 Other vehicle in Earth SOI 77775 Other vehicle in Moon SOI This vehicle in Earth SOI This vehicle in Moon SOI

Accept Data?

FV21N02

2

R3:00325

Accepts data and VAGC goes to POOH.

Spreadsheet Notes:

V33E

Orbiter to AGC tab shows state vector conversion AGC Yellow Fields indicate calculated values of note. reference. Loadup tab shows construction of octal pairs.

because of different scaling of State vector values. Currently moon sphere of influence will not work

Explanation of data:

304	Octal number of address to update
305	Starting address
306	Update based on SOI scaling
307-310	X Position
311-312	Y position
313-314	Z Position
315-316	_
317-320	Y Velocity
321-322	321-322 Z Velocity

vectors
State
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Time
Mission
323-324