

Massachusetts Institute of Technology
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Cambridge, Massachusetts

Luminary Project Memo No. 16

TO: G. Levine
FROM: R. Larson *RL*
DATE: 7 December 1970
SUBJECT: Descent erasable load for Apollo 15

Data required by December 14.

We have been requested by the chairman of the Software Control Board to review the attached target load to be used with the LM 10 vehicle weights and 1046 engine. These targets were given tentative approval at the Nov. 12 Mission Review and will come up for final approval at the December 14 Mission Review. This is for Apollo 15; the site is Hadley Appennines.

Some data on the 1046 engine:

Thrust at FTP	9883.2 lbs.
slope	.198644
ISP at FTP	306.36
slope	-.00648
chamber pres.	105.8
slope	-.012378
mixture ratio	1.600

We don't have the terrain model for Hadley but Fra Mauro should be good. I am getting Hadley data tomorrow. The DAP group has data on the LM10 vehicle weights.

MNEMONIC	Value LGC	Octal word1	Octal word2
VIGN	16.90813	00416	20755
RIGNX	-4.929476E4	77717	73423
RIGNZ	-4.714053E5	77063	64452
RBRFGX	-9.433637E2	77777	42411
RAPFGX	4.831050E1	00000	01405
RBRFGZ	-3.758987E3	77774	52417
RAPFGX	-8.337926	77777	77572
VBRFGX	-5.403905E-1	77767	53243
VAPFGX	-1.077389E-2	77777	72367
VBRFGZ	-6.239420E-1	77766	40424
VAPFGZ	7.604912E-5	00000	00024
ABRFGX	-1.267112	77774	65551
AAPFGX	2.352395E-6	00000	23567
ABRFGZ	-2.610836E-4	77673	61675
AAPFGZ	-1.797183E-5	77773	51173
VBRFG*	-1.123096E-1	77514	51576
VAPFG*	1.36884E-3	00000	00547
ABRFG*	-1.566502E-3	777145	53164
AAPFG*	-1.078310E-4	77743	67344
JBRFG*	-4.234801E-9	77556	57622
JAPFG*	1.315931E-8	00704	04641