# Human Exploration and Operations Mission Directorate 

Supplemental Budget Status for
NASA Advisory Council
Human Exploration and Operations Committee

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Human Exploration and Operations
FY 2018 President's Budget Request (PBR) vs. Appropriation

| (\$ Million) | FY 2017 <br> Enacted | $\begin{gathered} \text { FY } 2018 \\ \text { PBR } \end{gathered}$ | Changes from PBR | FY 2018 <br> Approp |
| :---: | :---: | :---: | :---: | :---: |
| TOTAL NASA (R\&D and CoF) * | 19,653.3 | 19,092.2 | 1,643.9 | 20,736.1 |
| TOTAL HEO (R\&D and CoF) | 9,312.0 | 8,787.4 | 866.6 | 9,654.0 |
| TOTAL HEO R\&D | 9,274.7 | 8,674.9 | 866.6 | 9,541.5 |
| Exploration | 4,324.0 | 3,934.1 | 855.9 | 4,790.0 |
| ESD | 3,929.0 | 3,584.1 | 810.9 | 4,395.0 |
| Orion | 1,350.0 | 1,186.0 | 164.1 | 1,350.0 |
| SLS | 2,150.0 | 1,937.8 | 212.2 | 2,150.0 |
| Exploration Upper Stage (EUS) | 300.0 | - | 300.0 | 300.0 |
| EGS | 429.0 | 460.4 | 434.6 | 895.0 |
| 2nd Mobile Launch Platform | - | - | 350.0 | 350.0 |
| ERD | 395.0 | 350.0 | 45.0 | 395.0 |
| HRP | 140.0 | 140.0 |  | 140.0 |
| AES | 255.0 | 210.0 | 45.0 | 255.0 |
| Space Ops | 4,950.7 | 4,740.8 | 10.7 | 4,751.5 |
| Overall Reduction |  |  | (39.3) |  |
| International Space Station (ISS) | 1,450.9 | 1,490.6 | - |  |
| Space Transportation | 2,589.0 | 2,415.1 | - |  |
| Space and Flight Support (SFS) | 910.8 | 835.0 | 50.0 |  |
| 21st Century Space Launch Complex | 20.0 | - | 20.0 |  |
| Tech for small payloads launch vehicles ** |  |  | 30.0 |  |
| TOTAL HEO CoF | 37.3 | 112.5 | - | 112.5 |
| Exploration CoF | 8.8 | 95.9 | - | 95.9 |
| Space Ops CoF | 28.5 | 16.6 |  | 16.6 |

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## Specific HEOMD Congressional Direction

- Use SLS as the launch vehicle for the Europa mission, NLT 2022
- SLS shall have a lift capability not less than $\mathbf{1 3 0} \mathbf{~ m t}$; shall develop core elements and an exploration upper stage simultaneously (EUS - \$300M)
- EGS received an additional $\$ 350 \mathrm{M}$ for launch capabilities and infrastructure associated with constructing a $2^{\text {nd }}$ mobile launch platform
> Bill language: ".....including \$350M for a second mobile launch platform and associated SLS activities"
- May use incremental funding for Orion, SLS and EGS acquisitions in FY 2018 and thereafter
- Establish a habitat development program office at a center
- Continue activities to advance technologies for launch vehicles of small payloads to increase opportunities for improved access to suborbital and orbital launch opportunities once the current round is completed (i.e. Venture Class Launch Services - \$30M)
- Maintain $21^{\text {st }}$ Century Space Launch Complex at FY 2017 levels (\$20M)


[^0]:    * Agency total does not include emergency supplemental funds
    ** Senate recommended funding level

