

Access to Archived Astronaut Data for Human Research Program Researchers: Update on Progress and Process Improvements

L.R. Lee¹, K.A. Montague¹, J.M. Charvat¹, M.L. Wear¹, D.M. Thomas², M. Van Baalen³

¹Wyle, ²Lockheed Martin, ³NASA Johnson Space Center

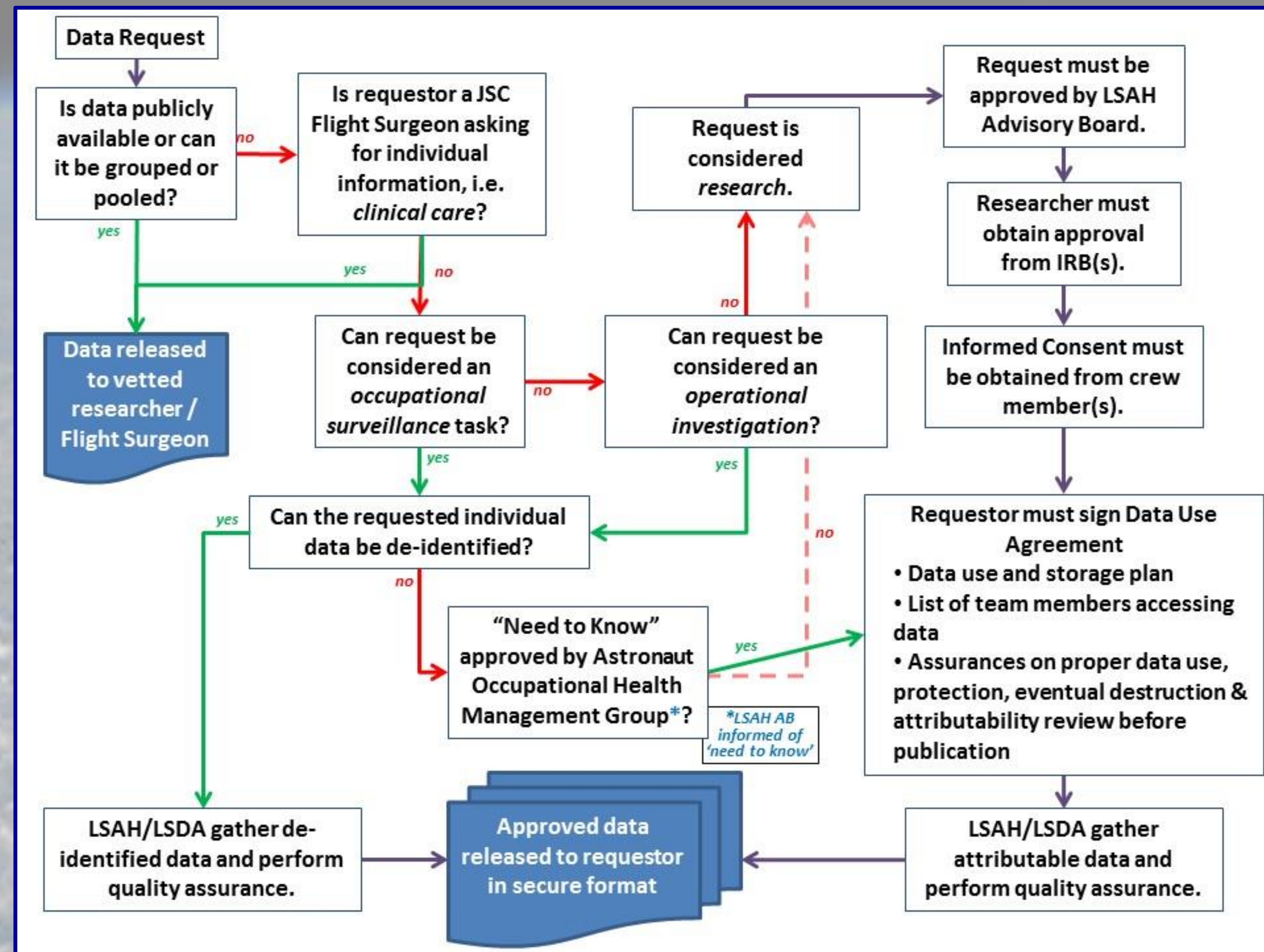
BACKGROUND

- Researchers and NASA benefit from use of archived astronaut data in their studies
- HRP provides resources to LSAH and LSDA for filling data requests
- Since 2011, mechanisms in place to increase efficiencies and availability of astronaut data

PROGRESS in FY15

- LSAH-/LSDA-Repository consent meetings were held with more than 80 crewmembers
 - 87% of all long-duration flyers have consented
 - 66% of ISS & Mir flyers (35 of 53 landed to date) chose Option 1
- Initiated "Need to Know" approval process for internal NASA personnel via the Astronaut Occupational Health Management Group in mid-FY15
 - Examples: HSRB risk actions; new risk development; operational need
 - Two requests approved to date
- LSAH & LSDA worked with HRP to start Data Mining Feasibility Assessments during 2013 NRAs:
 - Allows earlier work with PI to provide guidance, assess data required and its availability
 - 2013: 23 HRP & 5 NSBRI reviewed
 - 2014: 17 HRP reviewed & 6 NSBRI in work

DATA REQUEST DECISION/ DOCUMENTATION PROCESS



REMOTE CONSENT

- Remote consenting via email for US active & retired astronauts has been used successfully since June 2014.
- In FY15, remote consents were completed for 8 HRP studies, with 47 consent emails sent/received from 14 US astronauts
- As of December 2015, average response time for individual study consents is 11 days.
- Currently no processes in place for obtaining retrospective study consent from IP crewmembers. Multilateral Human Research Panel for Exploration (MHRPE) is helping facilitate similar process with IP agencies

Table 2: REPOSITORY CONSENTING PROGRESS

FY15 Progress	Meetings Held	Option 1: Use All W/Out Further Consent	Option 2: Consent Always	Option 3: Consent Depends on Data	Forms Not Yet Returned
LSAH-R	83	33	29	7	14
LSDA-R	80	42	24	5	9

TOTALS AS OF DECEMBER 17, 2015	Signed Forms Rec'd	Option 1:	Option 2:	Option 3:
LSAH-R	176	100	54	22
LSDA-R	179	124	45	10

Of these, 35 (of total 53 landed to date) are ISS & Mir crew

Table 1: RESEARCH DATA REQUESTS COMPLETED in FY15

Size	Small (< 8 hr)	Medium (8-40 hr)	Large (40 hr-1 mo)	Huge (> 1 mo)	TOTAL
LSAH	9	3	3	4	19
LSDA	23	7	1	0	31
Total:	32	10	4	4	50

<https://lsda.jsc.nasa.gov>

DATA AVAILABLE FOR REQUEST:

- HANDOUTS BELOW SHOW ASTRONAUT MEDICAL DATA
- SEARCH WEBSITE SHOWN AT RIGHT FOR ASTRONAUT, PLANT, ANIMAL RESEARCH DATA

FORWARD WORK

- Develop video/Skype consenting capability to reach retired astronauts who no longer return to JSC
- Epidemiology risk SMEs identified to work with risk custodians on data, Evidence Book updates in 2016
- Continue work with MHRPE on access to IP crewmember data for US investigators
- Work with IRB on possible retrospective study-specific e-IRB template
- Apply Data Complexity scores to new data requests to develop time-to-complete metrics

