



December 12, 2016

Dr Ken Sembach, Director
Space Telescope Science Institute
3700 San Martin Drive
Baltimore, MD 21218

Re: JSTAC considerations re OSS software certification prior to the OTIS Cryogenic Test at JSC

Dear Director Sembach:

As is usual at JSTAC meetings, the committee heard a number of updates on the readiness of STScl for launch, and particularly on its development software systems for JWST. The JSTAC noted that the status was very encouraging. It appears that STScl is keeping to its schedule and has good margins on milestones for its key deliverables. Over the years the JSTAC has heard that maintaining schedule has required that STScl development teams have access to the Certification Labs. JSTAC has appreciated that STScl and the JWST Project have found ways to ensure adequate access for STScl development efforts, especially given all the demands on the Certification Labs.

During the presentations and the resulting discussion at its most recent Nov 29-30 meeting, the committee became more aware of the importance of the OTIS Cryogenic Test at JSC next year for the final certification of OSS scripts on the OTIS flight hardware. The JSTAC recognized that this was the last opportunity to do that for many aspects of the OSS scripts before actual post-launch operations. The committee is aware of the importance of doing the flight certification on the Observatory before launch, whenever possible, recognizing that doing software certification on the observatory systems while in orbit adds an element of inefficiency and risk.

However, to run any OSS scripts on OTIS requires adequate access to the Certification Labs to certify the software at the required prior level before the OTIS Cryogenic Test commences. It appears that the availability of the Certification Labs may make that prior certification difficult to accomplish in time. The JSTAC hopes that STScl and the JWST Project can find ways to ameliorate the access availability of the Certification Labs such that the needed next-level certification on the flight hardware can be performed in the last opportunity before launch during the OTIS Cryogenic Test at JSC.

Sincerely yours, on behalf of the Committee,

Garth Illingworth
Chair, JSTAC

JSTAC members:

Roberto Abraham
Neta Bahcall

University of Toronto
Princeton University

Natalie Batahla	NASA Ames Research Center
Roger Brissenden	Smithsonian Astrophysical Observatory
Timothy Heckman	Johns Hopkins University
Kelsey Johnson	University of Virginia
Heather Knutson	Caltech
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Lisa Storrie-Lombardi	Spitzer Science Center, Caltech
Monica Tosi	INAF – Osservatorio Astronomico di Bologna
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JSTAC Ex-officio observers from the Agencies:

(whose contributions to this letter were limited to factual input)

Hashima Hasan	NASA HQ
John Mather	NASA GSFC
Mark McCaughrean	ESA
Alain Ouellet / Jean Dupuis	CSA
Eric Smith	NASA HQ