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(U) NRO-NASA Hardware Communications Plan

(U) Background

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~~(S//TK//REL)~~ The National Reconnaissance Office (NRO), National Aeronautics and Space Administration (NASA), and ITT Exelis signed a Memorandum of Agreement in August 2011 transferring residual telescope hardware from the [redacted] program to NASA. This hardware consists of two partially disassembled telescope assemblies, a third primary mirror, and other spare components. NASA has targeted the Wide-Field Infrared Survey Telescope (WFIRST) as one of several potential science applications that could benefit from this hardware. Recommended by the National Academy of Science 2010 Decadal Survey and developed in partnership with the Department of Energy, WFIRST would launch in 2020 to study dark energy, hunt for Earth-like planets, and advance scientific understanding of the nature and evolution of galaxies. NRO's contribution of flight-ready hardware will save at least two years and \$275 million from the WFIRST developmental baseline, at greatly reduced risk and with vast improvements in science, due to the larger 2.4-meter aperture.

(U) Communications Posture

(U) The public affairs posture is passive. There will be no media releases, media availabilities, or public announcements about the hardware transfer or the hardware itself. The NRO will take the lead responding to inquiries about the hardware's development and transfer. NASA will take the lead responding to questions about its reuse.

(U) After the hardware is officially declared desensitized, and with NRO approval, NASA/Exelis may communicate with the scientific community and uncleared NASA personnel (including those engaged in NASA-sponsored studies/research) about the hardware's unclassified technical details, as necessary to accomplish its reuse.

~~(S//REL)~~ The following points lay out the communications posture NRO, NASA, Exelis, [redacted] and other organizations will use in responding to media/public questions and communicating with uncleared stakeholders.

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- 1) Acknowledge "fact of" NRO ownership of transferred hardware
- 2) Acknowledge "fact of" transfer of hardware to NASA
- 3) Acknowledge "fact of" the Exelis role in building the hardware and that it is stored at Rochester, NY.
- 4) Acknowledge "fact of" the hardware no longer possesses intelligence collection uses.
- 5) Do not acknowledge "fact of" [redacted]
- 6) Do not acknowledge the relationship [redacted] activities.
- 7) Do not acknowledge the "fact of" [redacted]

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- 8) Do not acknowledge the
- 9) Per DNRO direction there is to be no release of photos of standalone hardware. DNRO has approved photos once hardware is integrated.

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(U) Questions and Answers (developed in the event media discovers the transfer and requests more information)

- 1) **Where is the hardware currently located?** The hardware is currently located at Exelis in Rochester, NY.
- 2) **Who built the hardware? When was this hardware developed?** Exelis developed and built the hardware between the late 1990s and early 2000s
- 3) **What other subcontractors or government agencies were involved in developing or building the hardware?** Numerous subcontractors, vendors, and parts suppliers contributed. NRO was the only government agency involved.
- 4) **How long has the hardware been in storage? Are other items in storage, if so, what?** Due to classification or policy guidance, we cannot reveal how long the hardware has been in storage. The NRO stores many components from various programs for spare parts, reuse, design studies, anomaly resolution, and historical preservation. Due to classification or policy guidance, we cannot reveal the specifics of the other items in storage or their locations.
- 5) **How much did the hardware cost?** Approximately \$275M.
- 6) **What NRO program produced the transferred hardware?** Due to classification or policy guidance, we cannot discuss the program office or directorate that produced the hardware.
- 7) Is this and/or hardware? Due to security or policy guidance, we cannot discuss the program office or directorate that produced the hardware.
- 8) **Did NRO, ITT, or another organization remove anything from the hardware; if so, what was removed?** Yes, Exelis removed some classified components added to the telescope assembly after its completion that were not germane to NASA's space science missions. We cannot discuss those components or what they were used for, as they are classified.
- 9) **What happened to the contract?** The contract ended and the hardware has been in storage since that time. Due to security and policy guidance, we cannot discuss when or why the contract ended.
- 10) **What will NASA use the hardware for once the transfer is complete?** That is a NASA decision. NASA, however, has targeted the Wide-Field Infrared Survey Telescope

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(WFIRST) as one of several potential science applications. Recommended by the National Academy of Science 2010 Decadal Survey and developed in partnership with the Department of Energy, WFIRST would launch in 2020 to study dark energy, hunt for Earth-like planets, and advance scientific understanding of the nature and evolution of galaxies. Please contact NASA for additional information.

11) What are the technical specifications of the hardware? Technologies include Exelis lightweight mirror, advanced structures, patented hybrid laminate technologies, and the Hexel/Exelis co-developed cyanate siloxane low moisture resin technology. Additional technical details include:

- 2.4m, f/8 with < 20% Obstructed Aperture
- Field of View: 1.6°, as Cassegrain
- Wavefront Quality: < 60 nm, rms
- Stable, f/1.2, Lightweight ULE™ Primary Mirror
- Stable, Low CTE Composite and Invar Structures
- Actuated Secondary Mirror Positioning
- 1,700 kg mass, including Telescope and Outer Thermal Barrel
- 2 Flight Units Available, with Limited Parts for 3rd

12) How did NASA learn about the NRO technology? Did NRO approach NASA, or did NASA approach the NRO? The NRO made NASA aware of the existence of this hardware; NRO was seeking a suitable disposition of this flight-qualified hardware.

13) Does NRO do other classified business with NASA? This hardware transfer is not classified and does not imply NASA does classified work.

14) Is NASA spying on the American public or our adversaries? No. The NASA budgets and programs are public information. NASA has a wide portfolio of Earth and Space Science programs that study the universe in which we live.

15) How is NRO benefiting from this transfer of hardware? The NRO is not benefiting from this transfer. As a good steward of government resources, NRO sought a new use for existing hardware assets no longer in use and approached NASA.

16) How is this hardware similar to the Hubble Space Telescope? It is approximately the same size as Hubble (2.4-meter aperture vice Hubble's 2.5-meter aperture) but uses newer, much lighter, mirror and structure technology.

17) Can the press take photos of the hardware? If not, will NRO/NASA provide photos? At NRO's request, NASA will only provide photos of the hardware after its integration; there will be no photos of the transferred hardware alone.

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- 18) Why does the hardware no longer have intelligence collection uses? This hardware, developed in the late 1990s, does not fit within the current intelligence architecture or meet future mission requirements.

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