

January 14, 2020 – SCO1909 Updated Schedule Proposal

Recipients: One Solutions, S-Connect, Hanwha Defense

Authors: Infiniti Electro-Optics

- Brian – CEO
- Scott – Project Engineer
- Tim – VP of Sales, Business Development

This letter is written in response to the urgent schedule change that Hanwha has requested of Infiniti through their in-person meetings with our representative, JunHo of One Solutions.

As you know, Infiniti has invested many hours already in this project, and are fully committed to providing the best solution in the end. I believe we have proven this by allowing many changes in the specification, extra documentation requests, and the travel efforts of our team (South Korea then Hawaii). We will not be able to deliver the fully completed unit as initially discussed, due to the aggressive and unexpected change in the timeline.

However, Infiniti will do **everything we can** to adjust to the new requirements. We propose an alternative timeline and specification list, shown below. We are committed to this partnership and completing the project successfully with One Solutions, S-Connect, and Hanwha Defense.

If Infiniti is required to deliver a system on February 7th to Vancouver, we estimate it will be **missing** the following functionality:

Auto-Tracking	Auto-tracking functionality will not be present. We will still provide the basic visual 'detection and highlighting' features as shown at the Hawaii demonstration
SWIR	<p>Option 1 – We provide the LEOS on February 7 according to schedule, and there will be NO SWIR lens. Only a viewing window and the mounting provisions. As discussed, there was not enough time to gather components from suppliers to build this component by the timeline.</p> <p>Option 2 – If Hanwha can wait 5 – 10 days longer (Feb 12 – Feb 17 delivery), we can try to wait for the SWIR lens component to be completed. This will have only the physical lens for viewing, and maybe video or basic configuration. This will be a high-risk option, as any problems in the lens production could cause more delays and Infiniti is not in control, because our supplier is producing the lens component.</p>
Software	The HTTP API implementation will be missing some features such as auto-tracking, SWIR integration, FOV synchronization, etc. The exact list is too difficult to estimate and will be up to Infiniti discretion for what to include or cut.
Calibration	Without temperature information provided by Hanwha in advance, our temperature calibration cannot be completed specifically for their application. We will proceed with our default calibration options.
Testing	Longevity tests will not be completed, as our standard test procedure requires minimum two full weeks minimum of operation for custom prototype systems such as the LEOS
FAT Documentation	Will not be provided until the completed delivery after April

If Hanwha agrees to these terms, we will require an official letter from S-Connect and Hanwha approving the submission of a 'partially completed' unit. It must be understood that our unit is not for comparison in a demonstration environment, and it is not guaranteed or warrantied by Infiniti during the first phase (Feb – Mar).

Along with this signed letter, we would request 90% of the remaining payment before releasing for shipment from Vancouver in February. The remaining payment would then be required before delivering the finalized LEOS in Q2 2020 (April 13 + 35 business days). We will arrange the required export / import documentation and do everything we can to expediate this process in both directions.

We also propose the following schedule alongside the DAPA schedule provided. We have adjusted the initial 45 days after April 13th to an estimate of **35 business days**. We will still endeavor to finish as quickly as possible, but this potential travel and assembly interruption means a lot of work will still be required after April.

Jan 14 - 17	Infiniti meets with suppliers to attempt adjusting to the new schedule
Jan 31	Infiniti estimates receiving last components (details uncertain)
Jan 31 - Feb 10	Infiniti team overtime effort to get the system ready for delivery to Vancouver
Feb 10	Infiniti receives 90% payment prior to shipping
Feb 10 - 14	Infiniti member (Tim) will be available in Korea to assist Hanwha in writing the technical proposal to the government. He will travel directly from India where he is visiting for a trade show. This will cut travel costs and be more efficient than extra travel.
Feb 11	LEOS ready for FOB in Vancouver port, including export documentation
Feb 12 - Feb 16	LEOS in transit to reach South Korea
Feb 17 - Feb 19	Hanwha works on their own to install the system onto their vehicle
Feb 19 - Feb 21	Infiniti engineer (Scott) arrives in South Korea, works with Hanwha to finish the installation of the LEOS onto the vehicle.
Feb 21	Hanwha submits proposal to government
Feb 21 - ???	Infiniti stays a few days (TBD) to finalize technical conversations and LEOS installation. Can also help prepare for March demonstration if relevant
??? (Mar 7 - 20)	South Korean government arrives for demonstration, Infiniti will take a second trip to South Korea to assist with this demonstration and continue technical conversations. Either one or two Infiniti employees, depending on Hanwha's needs at that time.
April 13	Hanwha ship LEOS back to Infiniti
April 20 - June 5	35 business days to finalize the LEOS system and complete FAT, auto-tracking, etc.
June 5	Infiniti receives final payment prior to shipping
June 5	Infiniti ships completed LEOS, concluding the initial prototype phase

Categorized	Content	Schedule
Application / Reception	receipt of application	3 rd JAN ~ 21 st FEB
Review and Document Evaluation	After reviewing the application documents in advance, set up a business evaluation review committee to select priorities.	24 th FEB ~ 5 th MAR

Site Inspection	Product level survey by visiting the requesting company	7 th MAR ~ 20 th MAR
Selection of a business	Decision on Project for Military Demonstration Management through Subcommittee on Defense Acquisition Planning and Management	23 th MAR ~ 26 th MAR
Announcement of selection result of military pilot project		27 th MAR
Bid notice and contract	Contractor Decision on Project for Military Demonstration Management	13 th APR ~ 8 th MAY

Things Hanwha can help INFINITI in the current situation.

- 1) *Postponed the FAT and the localization consultation meeting after April.*
 - 2) *Hanwha can receive LEOS cameras that have not completed performance until Feb. 14.*
 - 3) *Tracking function is not required to be mounted on prototype LEOS.*
- *The tracking function will be applied to the next 20 units.*

Hanwha will propose you a meeting when you are in Korea to discuss detailed requests for tracking functions.

1. We agree, this would be necessary to meet any deadline in February, we must be fully focused now on this date, no more extra documentation or meetings.
2. See notes above
3. Yes, also essential, as this is a major area of development required. I also think our time will be most efficiently spent on this after Hanwha has specified their requirements for operator control

Regarding the travel plans, this has required a discussion with our board of directors. A month-long visit from 1 or 2 key engineers required for this project would be a major investment and set back other active projects. We have legal obligations to existing customers that are finishing in Q1. In particular, the US military has strict contract laws surrounding finishing their productions ahead of others. These other projects would not normally conflict with the Hanwha project, as it remains top priority, but we did not schedule for an entire month off-site for the key design engineer(s). For example, we have plans to perform a FAT in North America with ADD around February / March, and an SAT in Korea after this. This ADD project also has a very strict contract involved, with extremely high late penalty conditions. The travel commitment is very serious for us and we would not normally even consider it. However, we are committed to this project and so are willing to make this sacrifice to support Hanwha, S-Connect, and One Solutions. This is also the reason why we are suggesting separate trips, instead of a month-long trip. We are open to discussing the exact dates required for our visits, and trust that Hanwha will understand our difficult position.

Whatever dates are decided for the travel, we expect these goals for our visits:

1. Give technical advice and assistance to write the proposal for Hanwha to give to the government
2. Assist with installation of the LEOS camera on the vehicle
3. Assist again with the demonstration when the government visits in March 7 – 20
4. Be available for additional technical discussions regarding the LEOS x20 and 400+ quantity programs, including
 - a. Finalization of Hanwha's requirements for auto-tracking
 - b. Establish the decision of lens size (435mm vs 600mm)
 - c. Finalize the specifications of the pantilt and other major components (SWIR, visible, and LRF)
 - d. Localization plans with S-Connect and Hanwha, we will come with a proposal on how to share the manufacturing process
 - e. Cooled thermal calibration specifications
 - f. Gyro stabilization specifications and configuration plan

Cost Proposal

Flights and Transportation	Covered by Hanwha
Food and Accommodation	Covered by Hanwha
Infiniti Employee(s)	800 USD per day, per employee
System Delivery	Covered by One Solutions as recommended by JunHo

All payment for Infiniti employee days must be received **at least 5 days** before travel.