NORTHROP GRUMMAN
Space Technology

Northrop Grumman Space & Mission Systems Corp
Space Technology
One Space Park
Redondo Beach, California 90278

16 January 2007

Deputy Chairman of the Foreign Affairs & Defense Committee
The Knesset
Jerusalem, Israel

:

Thank you very much for the time you spent to listen to our presentation and to discussing the Skyguard system. We remain convinced that Skyguard is the only proven technology capable of providing rocket defense in 18 months.

As pointed out in our discussion, exclusive pursuit of a single technology may appear to be lower cost but enhances risk of mission failure. Projectile-based (kinetic energy) solutions remain uncertain as to their ability to accomplish the rocket defense mission at acceptable cost. They also require the expensive production and storage of missiles in large quantities. And these missiles will have a limited shelf life. Any alternative technology must be assessed for compatibility with the operational requirement for combat airspace clearance, i.e., preventing damage from "metal in the air" on friendly aircraft, helicopters and UAVs, avoiding fratricide among intercepting projectiles, preventing electromagnetic interference caused by radar guidance and seekers, and coping with multiplication of IR-generating objects and the problem of falling debris. As world leaders in solid state laser technologies we believe that it will be years before SSL's can be proven at power levels much less than Skyguard provides. Research and a testing program are needed for these technologies and these required efforts limit the possibility for immediate operational deployment.

The Skyguard defense system has been tested dozens of times against multiple threats in operational scenarios. The $400 million invested in it by the American and Israeli governments has produced years of demonstrated performance, technical planning and testing that other systems need now to begin. The non-recurring engineering is now complete and paid for; it remains only to be made operational.

Northrop Grumman proposes to move immediately now to the operational deployment phase with laser firing units incorporating tested technologies that are inserted within a proven acquisition and tracking sensor network, with firing solutions and command/control infrastructure that can be used not just for lasers but also for projectiles and guns, if such systems are developed and proven to be cost-effective. Northrop Grumman has done such integration of kinetic energy weapons in Iraq. Similarly, in addition to projectile/gun systems, if a new type of laser is developed and proven advantageous, it can be integrated in Skyguard with most of the existing weapon remaining intact. Given this open, adaptable approach, the Skyguard integrated defense system accommodates future evolution by providing ready, critical and mandatory infrastructure. It provides open system development options, thereby fully mitigating technical risk.

To meet Israel's requirement for rapid operational deployment we plan to team with IAI to ensure timely integration and compatibility with the IDF sensor and C3I infrastructure. The best of Israeli sensor and C3I technology from other Israeli firms, including Rafael, will be incorporated, as and if desired by the MoD.

We are prepared also to mitigate schedule risk by making a commitment for operational deployment at Sderot within 18 months of an order. While a single Skyguard system, at a cost of $177M, would protect Sderot or Ashkelon, redundancy would enhance system availability and salvo performance in inclement weather. We would be prepared to provide 2 additional Skyguard systems over the following 6 months for an additional cost of $133M. This will bring the total cost for the first 3 units to $310M, all at a firm fixed price and a 24 months 3 unit delivery schedule. Additional units will cost $40 to $50M depending on how many are ordered and at what intervals. Northrop Grumman would be prepared to move forward at its own expense upon commitment by Israel to Skyguard in order to save time.

Because of its American content, the Skyguard system lends itself to financing by either foreign assistance or shekels or a combination of the two. This provides flexibility for the IDF and national budget as military and civil needs evolve rather than tying the rocket defense system to the domestic budget exclusively.

Because our approach is open and adaptable to all Israeli and US technology, and because we are prepared to enter now a contractual arrangement that will mitigate Israeli technical, schedule and cost risks and provide an operational defense quicker than any other alternative, we believe the Skyguard integrated defense system, launched with the tested Skyguard laser, is Israel's best defense choice, permitting near-term defense while leaving open options for system evolution within an eventual comprehensive national defense.

Please let us know if we can provide further information to you.

Warmest regards,

Mike McVey

Mike McVey
Vice President, Directed Energy Systems