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December 20, 2005

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street SW
Washington DC 20554

Re: ET Docket No. 04-373
SafeView, Inc., Request for Waiver of Sections 15.31 and 15.35 of the
Commission's Rules
Ex Parte Communication

On behalf of SafeView, Inc., pursuant to Section 1.1206(b)(2) of the Commission's Rules, I am electronically filing this notice of an oral *ex parte* communication.

Yesterday, Scott Trosper of SafeView and I met with Julius Knapp, Bruce Romano, Geraldine Matise, Karen Rackley, Anh Wride, and (by videoconference) Joe Dichoso and Steve Jones of the Commission staff.

We summarized the elements of SafeView's pleadings in the docket. A copy of our presentation outline is attached.

Please do not hesitate to call with any questions.

Respectfully submitted

Mitchell Lazarus
Counsel for SafeView, Inc.

cc: Meeting participants

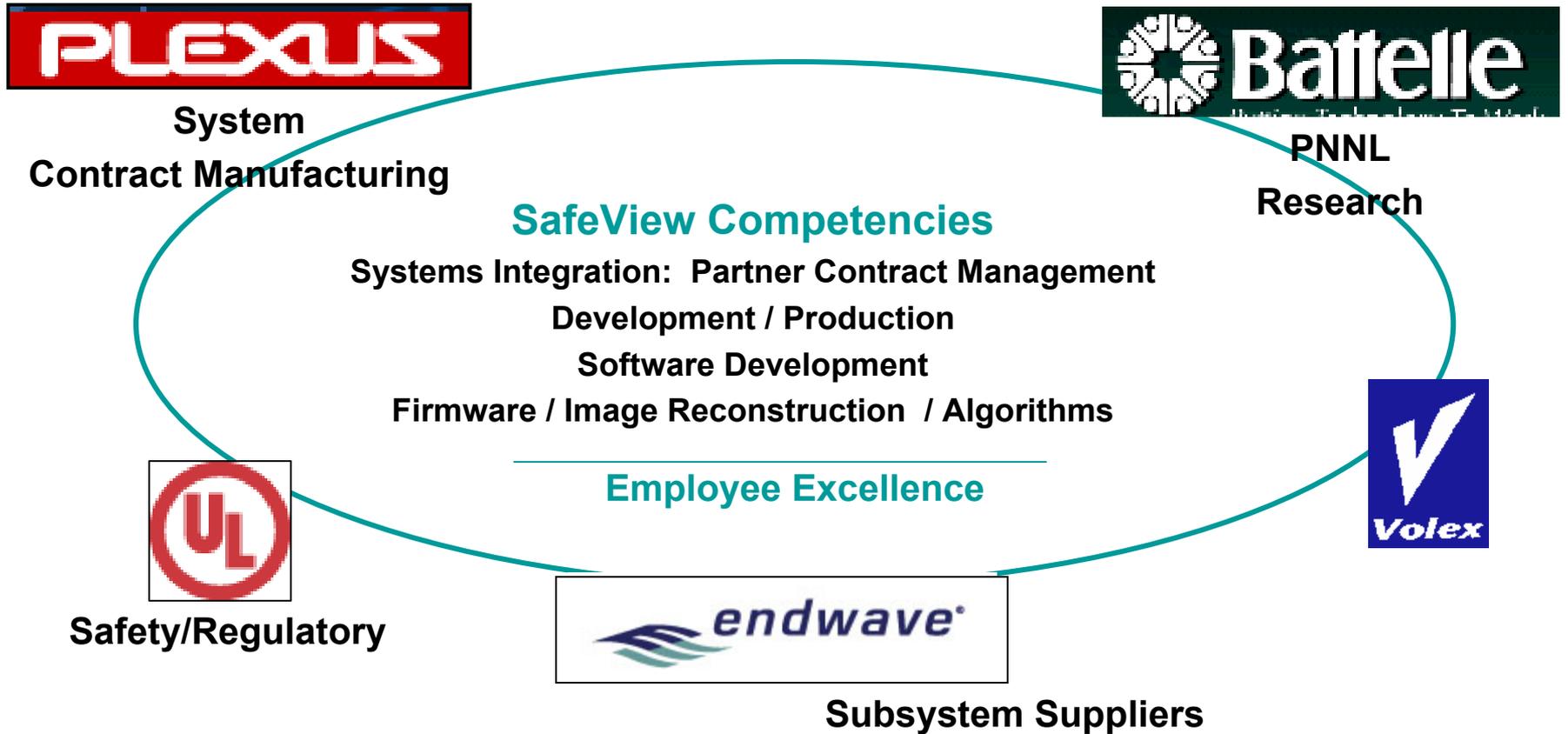
SafeView, Inc.

Office of Engineering and Technology

December 19, 2005

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The SafeView Technical Team



SafeView Units



SafeScout™ 360 with Doors



SafeScout™ 100 w/o Doors

Identification of Potential Threat Objects

Optical Image

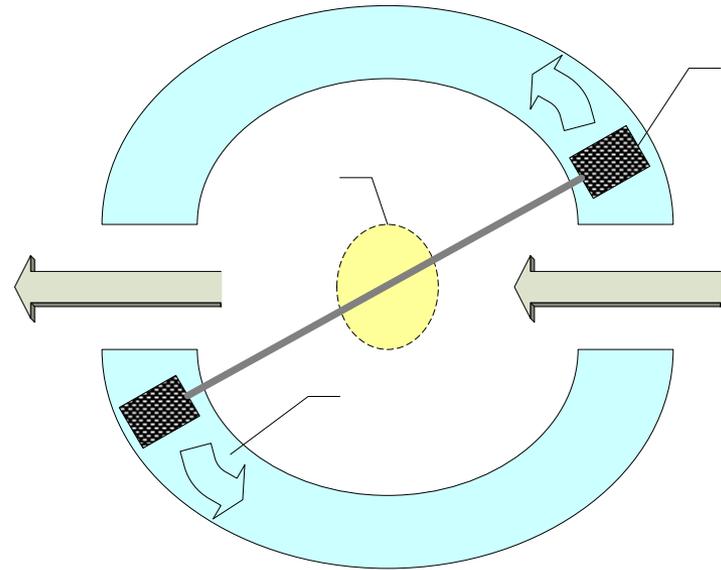


SafeView Image



SafeView Operation

- Subject briefly stands in unit
 - scan takes less than 2 seconds
- Unit transmits radio waves and measures reflection
 - *fast* frequency sweep from 24.25 to 30 GHz
 - sweep rate 1.1 MHz/nanosecond
- Calculate image
 - uses object detection and privacy algorithms.



Public Safety Applications

- Homeland security
 - airports, other transportation terminals
 - borders, checkpoints
 - military and government buildings
- Correctional institutions
- Detects both metal *and non-metallic* threat objects
 - replaces metal detectors & hand searches
- Detects more hidden weapons
 - airport screeners miss weapons in 25% of tests
- Reduces slow security lines and “groping” allegations.

Waiver Request

- Scope of request:
 1. to report average emissions with sweep running
 - waiver of Section 15.31(c)
 2. to allow peak emissions to exceed peak limit by 20 dB
 - waiver of Section 15.35(b).

Proposed Waiver Conditions

- All units under waiver installed indoors
- SafeView maintains database of installations
 - will make available to FCC, NTIA on request
- Maximum 100 units in first year, 200 in second year
 - subsequent years negotiable.

Proposed Measurement Procedure

1. Calculate duty cycle into 1 MHz measurement bandwidth (per 47 C.F.R. § 15.35(b).)
 2. Measure peak signal with sweep stopped
 - provides for accurate and repeatable measurement
 3. Calculate:
average emissions = peak signal x duty cycle
- Predicted values:
- duty cycle = – 39.5 dB
 - peak signal = – 3.5 dBm
 - average emissions = – 43 dBm (1.7 dB below limit).

Harmful Interference Is Extremely Unlikely

- 24 / 28 GHz fixed service licensees allege possible interference
- But harmful interference can arise only if a fixed service receiver:
 - is located close to a SafeView device, and
 - is aimed at (or nearly at) the Safeview device, and
 - has no obstruction between it and the SafeView device
- Even if all these occur, the SafeView signal is within the receiver passband only a very small fraction of the time
- Taking all factors together, actual harmful interference has negligible probability.

The Waiver Will Not Increase Energy into a Victim Receiver

- RF energy from a waived SafeView device into a victim receiver *is no greater* than from a Part 15 device not needing a waiver
 - this holds for *any receiver passband*.

Harmful Interference Is Remotely Plausible Only in the Same Room

- Harmful interference is unlikely under any circumstances.
- SafeView's indoor-only operation, plus building attenuation, make interference virtually impossible outside the same room as the SafeView device
 - in the same room, both devices will be control of the same entity (e.g., the airport authority)
 - that entity can choose the technology it needs; or can position the equipment to use both.
- Also: *any interference victim can require SafeView to correct the interference. 47 C.F.R. § 15.5(c).*

Opposition and Response – Scenarios

- Scenarios that Hughes claims will cause interference:
 1. outdoor SafeView device^(1,2) – barred by waiver
 2. collocation in same room^(1,2) – see previous slide
 3. implausible geometries:
 - outdoor fixed receiver aimed indoors through window^(1,2)
 - reflection of signal from water towers or water surface⁽³⁾
 - signal “enhanced” by reflections, multipathing, ducting, or diffraction⁽²⁾
- these are unlikely to cause harmful interference in practice
- SafeView must correct any harmful interference.

(1) Hughes Oct. 22, 2004, Exh. 1 at 3. (2) XO and Hughes Nov. 18, 2005 at slide 7.

(3) Hughes Jan. 28, 2005 at 1.

Opposition and Response – Duty Cycle

- **Opposition:** Hughes and XO object to SafeView's calculation of the device duty cycle.⁽¹⁾
- **Response:**
 - the calculation relies only on (1) the fraction of time the system transmits; and (2) the fraction of time the signal is present in a 1 MHz measurement bandwidth
 - the calculation averages over 0.1 sec, per 47 C.F.R. § 15.35(c)
 - other factors reduce the duty cycle over time scales longer than 0.1 sec, but SafeView does not rely on these.

(1) XO and Hughes Nov. 18, 2005 at slide 9.

Opposition and Response – Compliance

- **Opposition:** “SafeView exceeds the limits by a factor of 13,000.”⁽¹⁾
- **Response:** The statement would be true only if SafeView operated *with the sweep stopped*
 - when measured in accordance with the waiver, SafeView complies with the average emissions limit
 - SafeView’s fast-sweeping signal with a very low duty cycle has much less impact on a receiver than a non-sweeping signal with the same peak amplitude.

(1) XO and Hughes Nov. 18, 2005 at slide 3.

Opposition and Response – Collocation

- **Opposition:** “10 collocated units would compound the problem up to 10 times.”⁽¹⁾
- **Response:** Multiple collocated units are not additive
 - each device is silent for 8 seconds out of 10
 - even during its 2 seconds of operation, a device is silent for 64% of each 8.6 millisecond period
 - directional antennas rotate during operation
- Negligible likelihood of two units affecting the same receiver in the same passband at the same time
 - (and SafeView does not foresee collocating ten units anywhere).

(1) XO and Hughes Nov. 18, 2005 at slide 10.

Opposition and Response – Indoor Operation

- **Opposition:** “[T]here is no way to restrict the re-sale or relocation of the devices.”⁽¹⁾
- **Response:** an active resale market is unlikely
 - units are large, expensive, non-portable
- **But SafeView will:**
 - label units for indoor-only use
 - require by contract that customers install units indoors
 - require similar conditions on resold units
- The FCC can revoke certification of any unit installed outdoors. 47 C.F.R. § 2.939(a).

(1) XO and Hughes Nov. 18, 2005 at slide 15.

Opposition and Response – Coordination

- **Opposition:** “SafeView users should coordinate with affected LMDS licensees in advance of placement.”⁽¹⁾
- **Response:** Interference is remotely plausible only as to indoor receivers in the same room
 - a user need not coordinate with itself
 - if harmful interference were ever to occur, the SafeView device would be in plain sight of the victim receiver.

(1) XO and Hughes Nov. 18, 2005 at slide 15.

Conclusion

- The requested waiver is in the public interest because:
 - the SafeView device will directly advance homeland security and public safety
 - the waiver is needed for non-Government use of the SafeView device
 - the waiver will not realistically result in interference to other spectrum users.

Thank you!