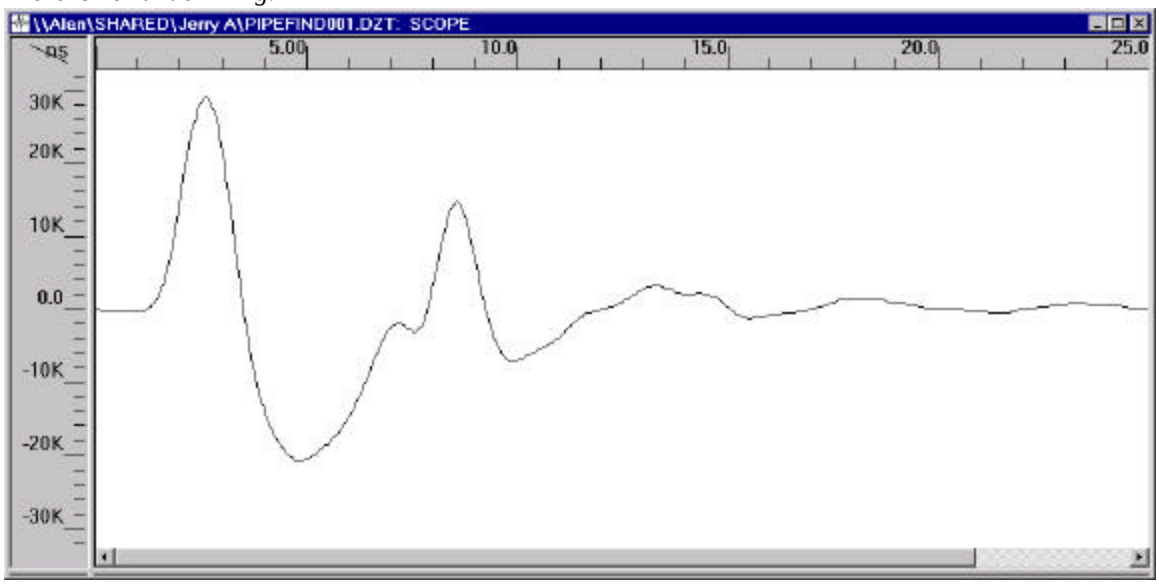
To: Alan Schutz, Geophysical Survey Systems Inc
From: Joe Dichoso
jdichoso@fcc.gov
FCC Application Processing Branch

Re: FCC ID QF7INTERRAGATOR
Applicant: Geophysical Survey Systems, Inc.
Correspondence Reference Number: 23929
731 Confirmation Number: EA363608

1) What is the carrier frequency of the pulse?

There is no carrier. It is a single cycle, whose center frequency is approximately 300 MHz.
A photo of the pulse is given below. The pulse width is approximately 3 ns. The PRF is a fixed 100 KHz. There is no randomizing.



This picture has the antenna 1 meter above a reflective plate. The first pulse is the direct coupling between transmitter and receiver, and the second pulse is that reflected from the plate. The horizontal scale is in nanoseconds.

2) Measurement from 960 -1 GHz with a log periodic antenna was requested due to the margin of compliance at 960 MHz which was 1 dB from the limit. When testing with a horn antenna, the horn antenna is focused 1 meter above your device and therefore it may not capture ground reflection as well as a log periodic antenna. Provide data at 960 MHz additional testing may be required depending on results or margin of compliance.

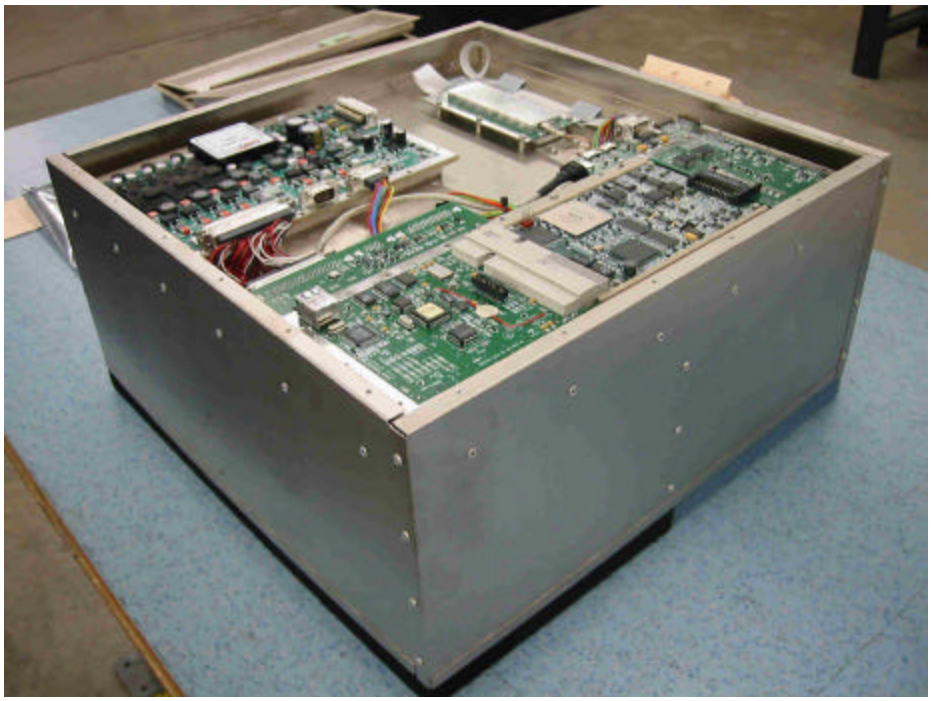
3) The requested frequency range will be changed to 30-889.5 MHz. Please verify.

Yes, we agree.

4) With regard to compliance with 15.503(f), the device must be designed to operate when in contact with the ground and have shielding to direct emissions toward the ground. In addition, imaging systems must have a manual switch which causes the transmitter to cease within 10 seconds. Please address these 3 issues.

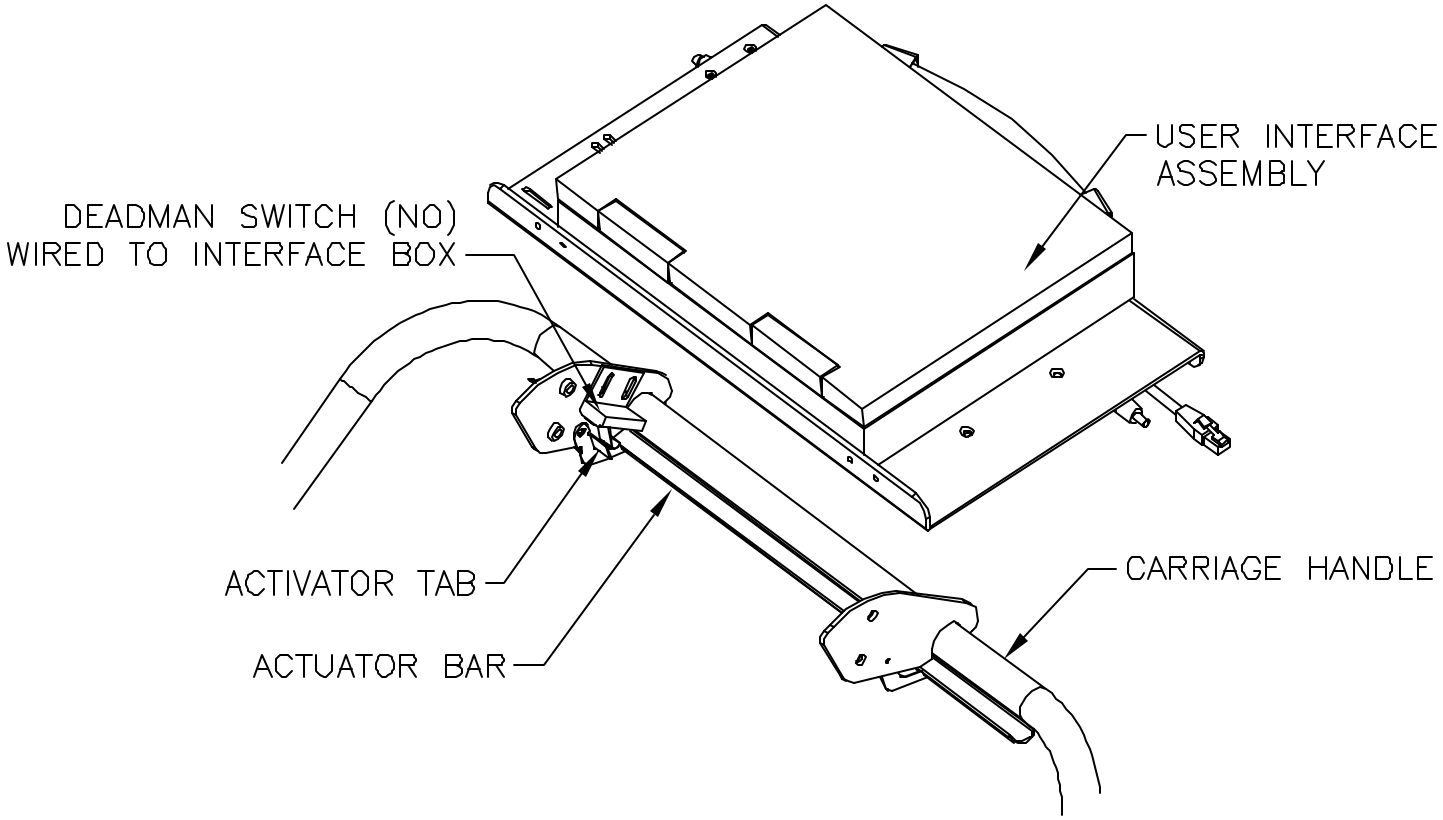
The Interragator is a cart-like device that is rather heavy. It can only be used on the ground.

The antenna is constructed as a five-sided metal box, with the antenna fans in the sixth side, on the ground side. The non-transmitting electronics is placed on the top of the shield. Another shield is placed over the electronics.



There is a deadman switch on the handle. When the user steps away from the cart, the transmitter will cease operating after 10 seconds. A drawing of the deadman switch is given on the next page.

REV	DATE	REVISION	DR	CKD	APD	APD



TOLERANCES EXCEPT AS NOTED ANGLES ±0.5° .X ±0.5 mm .XX ±0.13 mm DIMENSIONS ARE IN: mm [in]	DRAWN R. ROMER	DATE 7/03/02	GEOPHYSICAL SURVEY SYSTEMS INC. 13 KLEIN DRIVE PO BOX 97 NORTH SALEM, NH 03073
	CHECKED	DATE	
	APPROVED	DATE	TITLE DEADMAN SWITCH & ACTUATOR MOUNTING
	SCALE 0.8 x		
	MATERIAL N/A		PAGE 1 OF 1
DO NOT SCALE DRAWING	FINISH N/A	SIZE A	PRELIMINARY — REV

5) For compliance with 15.509(g), the label information must be on the device. Show where this label will be placed on the device.