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July 30, 2003

Part Grant Doc
Comments of Alertcast Comms.
(July 30, 2003)

By Hand Delivery

Marlene H. Dortch
Secretary
Federal Communications Commission
236 Massachusetts Avenue, N.E.
Suite 110
Washington, D.C. 20002
Attn: Office of Engineering & Technology

Re: Application for Special Temporary Authority
Experimental Radio Station WB9XTT
Safety Cast Corporation
(File No. 0183-EX-ST-2003)

Dear Ms. Dortch:

Transmitted herewith on behalf of Alertcast Communications, LLC, are an original and four copies of its comments filed in response to *Public Notice*, DA 03-2109 (released June 30, 2003), concerning the above-referenced application for special temporary authority.

Should any questions arise concerning this matter, please communicate directly with the undersigned.

Very truly yours,

DICKSTEIN SHAPIRO MORIN
& OSHINSKY LLP
Attorneys for

Alertcast Communications, LLC

By: Andrew Kersting
Andrew S. Kersting

Enclosure
cc: Certificate of Service (w/ encl.) (by hand & first-class mail)

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In re Application of	)	
	)	
Safety Cast Corporation	)	File No. 0183-EX-ST-2003
	)	
For Special Temporary Authority For Experimental Radio Station WB9XTT	)	

To: Chief, Office of Engineering and Technology

COMMENTS OF ALERTCAST COMMUNICATIONS, LLC

Alertcast Communications, LLC ("Alertcast")[1] submits these comments in response to the Commission's *Public Notice*, DA 03-2109 (released June 30, 2003), concerning the above-captioned application for a Special Temporary Authorization ("STA") in the Experimental Radio Service.

I. Introduction.

Safety Cast Corporation ("SCC") filed an application on April 18, 2003, requesting an STA in the Experimental Radio Service (File No. 0183-EX-ST-2003) to operate a low power, mobile transmitter that will broadcast hazard, emergency, and other alert messages from authorized public emergency vehicles (police, fire/rescue, etc.). According to its application, SCC's low power transmitter will transmit short alert messages, averaging five (5) seconds in length, throughout the FM band (88.1-107.9 MHz). SCC Application at 4-5. SCC proposes that

[1] Alertcast is an applicant for an experimental broadcast authorization that also proposes the use of a low power, mobile transmitter designed to operate from authorized public emergency vehicles. The technical parameters of Alertcast's proposal are somewhat different from those specified in Safety Cast Corporation's request for a special temporary authorization.

its low power transmission system will operate with 80 mW per channel with an antenna less than one meter in length, which will be mounted on authorized emergency vehicles. *Id.* at 6. SCC's alert warning signals are designed to be received within a distance up to 1,050 feet from the transmitter. *Id.* at 4.

II. SCC's Low Power Transmitter Will Not Adversely Affect the EAS Because Its Proposed Operation Will Have a Minimal Impact on Full-Power AM and FM Radio Stations.

Due to the low power level (80 mW) and antenna height (less than one meter) proposed by SCC, the emergency alert signals transmitted by its low power transmission system will be confined to a limited area in the immediate vicinity of the emergency vehicle from which it operates. The ability to receive the signal transmitted by the low power transmitter will be further restricted by the fact that the signal will be transmitted on the same frequencies as those of nearby full-power FM radio stations operating with substantially greater power. At almost any point within the 60 dBu contour of a co-channel FM station, the FM station's signal will be so much stronger than that emitted from the emergency vehicle that it will be difficult to receive a listenable signal from the low power transmitter. To the extent that the low power transmitter's signal can be received, the only receivers that will be able to pick up its signal will be those within a very limited area of the emergency vehicle at the time an emergency alert is emitted.[2] Thus, because only a very few listeners or motorists will be close enough to the emergency vehicle to receive the audio alert signal transmitted by the low power transmitter, only a very

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[2] SCC's application does not specify the nature of its proposed antenna system. It is reasonable to assume, however, that its low power transmission system will utilize a quarter-wave antenna. If this is the case, the distance to which the low power signal will extend will vary depending upon the frequency of the transmission. The audio alert signal will be able to be received a greater distance from the low power transmitter on those frequencies which are closest to the frequency to which the antenna has been tuned. The further the transmission frequency is from the frequency to which the antenna has been tuned, the lesser distance the signal will travel.

small percentage of an FM station's listeners potentially could have an EAS message interrupted by an alert signal.

For those few listeners who are in the immediate vicinity of an emergency vehicle who are able to receive the signal emitted by the low power transmitter, it is possible that the alert signal may be completely drowned out by the emergency vehicle's siren, which will be in close proximity to the listener's receiver. In fact, those few listener's who are close enough to an emergency vehicle to receive an alert signal from the low power transmitter may not be able to hear their car stereo over a blaring siren regardless of whether it is airing an alert signal or an EAS message. Thus, an emergency vehicle's continuous siren, which extends much longer than five (5) seconds in duration, is much more likely to prevent listeners from receiving an EAS message than the brief alert signal transmitted by a low power transmitter.

To the extent that the low power transmitter's signal can be heard over an emergency vehicle's siren, as stated above, SCC's emergency alert signal will last, on average, only five (5) seconds in duration. SCC Application at 4-5. The short duration of the low power transmitter's audio alert should not preclude listeners from being able to hear an EAS message on a co-channel FM station for at least two reasons. First, the chances that an EAS message (which are aired very rarely) would be broadcast during the same five (5) second period in which a low power transmitter emits an emergency alert signal are extremely remote. Moreover, an EAS message – whether it is a weather advisory, Amber alert, or another form of emergency message – will generally be much longer than five seconds in duration because it is necessary to give listeners more information concerning the specific emergency than can be conveyed in that short period of time. Due to its importance to listeners within the FM station's service area, an EAS message also is likely to be repeated on the same station and be aired on other local radio stations, including AM stations whose signals will not be subject to SCC's low power

transmitter. Therefore, it is very unlikely that the brief audio alert transmitted by a low power transmitter in an emergency vehicle would preclude a radio listener from being able to receive an EAS alert. In any event, for that brief, five (5) second period of time in which the low power transmitter's alert signal is being transmitted, it is difficult to conceive of a more imminent threat of harm to persons within the immediate vicinity of an emergency vehicle than being involved in an accident with the emergency vehicle which is rapidly approaching at a high rate of speed.

The emergency alert signals transmitted by the low power transmitter also will not interfere with the ability of nearby radio stations to receive the off-air signals of their EAS monitoring stations and either receive or transmit EAS tests. Nearly all full-power radio stations maintain their EAS equipment at their studio. In the event an emergency vehicle with a low power transmitter emits an emergency alert as it passes by the studio facility of a full-power radio station, the low power transmitter should not interfere in any way with the radio station's ability to either receive or transmit EAS tests because the station's EAS equipment, located within the station's studio, should be sufficiently insulated from the low power transmitter that any emitted emergency alert will not interfere with the radio station's ability to receive an EAS signal from its monitoring stations.[3]

III. SCC's Low Power Transmitter Could Provide Substantial Public Interest Benefits.

It is apparent that SCC's low power transmitter is intended to substantially enhance the visual and auditory alerting equipment currently employed by emergency vehicles by enabling them to transmit a brief warning message over several commercial FM frequencies simultaneously. The low power transmissions will create a localized region around the

[3] If one of a radio station's EAS monitoring stations is an AM station, SCC's low power transmitter could have no effect on the station's ability to receive and transmit EAS tests because it will not be operating in the AM band.

emergency vehicle where the field strength of the emergency transmission exceeds that of the commercial FM station operating on the same frequency. As stated above, SCC believes that the transmitted signal will extend up to 1,050 feet from the emergency vehicle in all directions. Motorists who have their radios tuned to one of the several frequencies programmed into the emergency transmitter presumably will hear the commercial programming fade to the short emergency alert as the emergency vehicle approaches. The commercial programming will then immediately resume as the emergency vehicle passes out of range.

SCC's low power transmitter will create a heightened awareness among all motorists, including those who are not listening to the affected FM stations because they are likely to observe the responses of those motorists in the immediate vicinity of an approaching emergency vehicle who are able to receive the audio alert. This heightened level of alertness will increase the likelihood that those motorists who do not receive the audio alert will either see or hear the emergency vehicle early enough to take appropriate action to avoid an accident and enable the emergency vehicle to continue toward its destination with a minimal amount of obstruction.

SCC's low power transmitter presumably has been designed as a means to help alleviate the steady increase in the number of accidents involving authorized emergency vehicles and private vehicles, and the attendant injuries and property damage resulting from those accidents.[4] As stated above, Alertcast is the proponent of a similar low power transmitter that also is designed to be installed in emergency vehicles. Based on the feedback that Alertcast has received concerning its own transmitter at industry trade shows over the past couple of years, Alertcast believes there is a substantial and urgent need for this type of low power transmission

[4] As reflected in Appendix A hereto, during the 2000 calendar year, there were estimated to be 5,949 accidents involving emergency vehicles that resulted in bodily injury and an additional 75 accidents that resulted in a fatality. There also were estimated to be an additional 10,572 accidents that resulted in property damage alone.

system. Police, fire department, and other emergency-related officials from across the nation have expressed enthusiastic support for Alertcast's similar low power transmitter because they believe it can play a significant role in reducing and helping to alleviate the substantial number accidents involving emergency vehicles. Therefore, Alertcast respectfully urges the Commission to grant SCC's STA request so that the applicant can conduct the necessary field tests which, if successful, could facilitate the deployment of this new, life-saving device.

Conclusion

SCC's request for an STA in the Experimental Radio Service should be granted because it will have, at most, a negligible impact upon the listening public's ability to receive EAS alerts. In addition, if SCC's field tests pursuant to an STA are successful, the subsequent licensing of SCC's low power transmission system and similar low power transmitter could provide substantial public interest benefits by helping to reduce the loss of life and substantial property damage that results each year from the enormous number of traffic accidents involving emergency vehicles. Alertcast respectfully submits that SCC's STA request should be granted so that the public will have an opportunity for this new, potentially life-saving low power transmission system to be tested under real-world conditions.

Respectfully submitted,

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By: 
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July 30, 2003

APPENDIX A

Estimates of Non-Fatal Crashes Involving Emergency Vehicles*
(Emergency Use Only)

Year	Vehicle Type	Injury	Property Damage Only	Total
1991	Police	3,376	5,522	8,898
	Ambulance	337	1,055	1,391
	Fire Truck/Car	533	1,515	2,048
1992	Police	3,225	7,073	10,298
	Ambulance	752	2,462	3,215
	Fire Truck/Car	368	997	1,365
1993	Police	3,039	5,136	8,175
	Ambulance	1,514	1,937	3,451
	Fire Truck/Car	551	1,299	1,850
1994	Police	2,583	5,376	7,959
	Ambulance	548	697	1,244
	Fire Truck/Car	933	858	1,791
1995	Police	3,739	6,800	10,539
	Ambulance	683	2,526	3,208
	Fire Truck/Car	679	1,103	1,782
1996	Police	3,049	6,347	9,397
	Ambulance	518	1,799	2,317
	Fire Truck/Car	318	1,445	1,763
1997	Police	3,469	6,541	10,010
	Ambulance	1,347	1,096	2,442
	Fire Truck/Car	652	2,315	2,967
1998	Police	3,566	6,309	9,875
	Ambulance	1,756	927	2,683
	Fire Truck/Car	680	1,741	2,421
1999	Police	4,247	7,215	11,462
	Ambulance	902	1,491	2,393
	Fire Truck/Car	526	2,853	3,379
2000	Police	4,132	6,292	10,424
	Ambulance	1,213	2,596	3,809
	Fire Truck/Car	604	1,684	2,288

* Source: National Highway Traffic Safety Administration ("NHTSA") (original data appended hereto). As indicated in the attached NHTSA data, the estimated crashes are not actual counts, but estimates of the actual counts. The estimates are calculated from data obtained from a representative sample of crashes nationwide collected through NHTSA's General Estimates System. The NHTSA advises that estimates should be rounded to the nearest 1,000.

Those estimates which are less than 500 indicate that the sample size was too small to produce a meaningful estimate, and, thus, according to the NHTSA, should be rounded to zero.

This table does not reflect the number of crashes that emergency vehicles were involved in when they were not in emergency use or it is not known whether the emergency vehicle was in emergency use.

According to the NHTSA, crashes may be counted more than once. For example, if a police vehicle and an ambulance are both involved in the same crash, the crash is counted twice; once for the police vehicle and once for the ambulance.

Estimated Number of Emergency Vehicles Involved in Fatal Crashes*
(Emergency Use Only)

Year	Number of Crashes	Percent of All Crashes
1990	74	41.3%
1991	85	42.5%
1992	96	48.0%
1993	81	46.3%
1994	86	57.3%
1995	70	40.2%
1996	77	52.0%
1997	75	51.0%
1998	68	53.5%
1999	50	49.0%
2000	75	44.4%

* Source: NHTSA (original data appended hereto). This table does not reflect the number of estimated crashes that occurred when emergency vehicles were not in emergency use.

Estimate of Non Fatal Crashes Involving Emergency Vehicles
by Year, Emergency Vehicle and Emergency Use
GES 1991-2000

NOTE: CRASHES MAY BE COUNTED MORE THAN ONCE ACROSS THE EMERGENCY VEHICLE
FOR EXAMPLE: A POLICE VEHICLE, AND AN AMBULANCE MAY BOTH BE INVOLVED IN THE CRASH AND THE CRASH IS COUNTED TWICE
ONCE FOR THE POLICE VEHICLE AND ONCE FOR THE AMBULANCE

YEAR		Injury				Property Damage Only				Total			
		Emergency Use				Emergency Use				Emergency Use			
		Not In Emergency Use	Unknown, If Emergency Use	In Emergency Use	Total	Not In Emergency Use	Unknown, If Emergency Use	In Emergency Use	Total	Not In Emergency Use	Unknown, If Emergency Use	In Emergency Use	Total
1991	Police	3,576	302	3,376	7,255	4,771	403	5,522	10,696	8,347	705	8,898	17,950
	Ambulance	997	0	337	1,334	416	0	1,055	1,470	1,413	0	1,391	2,804
	Fire Truck/Car	10	20	533	563	296	10	1,515	1,823	308	30	2,048	2,387
1992	Police	1,728	149	3,225	5,101	5,942	0	7,073	13,015	7,670	149	10,298	18,117
	Ambulance	404	0	752	1,156	0	278	2,462	2,740	404	278	3,215	3,896
	Fire Truck/Car	110	0	368	479	1,430	109	997	2,536	1,541	109	1,365	3,015
1993	Police	3,198	79	3,039	6,316	6,991	332	5,136	12,459	10,189	411	8,175	18,775
	Ambulance	409	0	1,514	1,923	278	0	1,937	2,215	687	0	3,451	4,138
	Fire Truck/Car	367	14	551	932	1,084	0	1,299	2,383	1,451	14	1,850	3,315
1994	Police	2,908	64	2,583	5,555	7,833	188	5,376	13,397	10,741	252	7,959	18,952
	Ambulance	970	0	548	1,517	1,149	0	697	1,845	2,118	0	1,244	3,363
	Fire Truck/Car	29	23	933	984	1,593	423	858	2,875	1,622	446	1,791	3,859
1995	Police	2,779	147	3,739	6,665	6,551	332	6,800	13,683	9,330	479	10,539	20,349
	Ambulance	265	27	683	975	605	0	2,526	3,130	870	27	3,208	4,106
	Fire Truck/Car	661	0	679	1,340	581	268	1,103	1,952	1,242	268	1,782	3,292
1996	Police	4,707	0	3,049	7,757	5,508	406	6,347	12,262	10,216	406	9,397	20,019
	Ambulance	729	0	518	1,247	1,279	5	1,799	3,083	2,008	5	2,317	4,330

(Continued)

Note: The 'Estimate of Crashes' numbers are not actual counts, but estimates of the actual counts.
The estimates are calculated from data obtained from a nationally representative
sample of crashes collected through NHTSA's General Estimates System (GES).
Estimates should be rounded to the nearest 1,000. Estimates less than 500 indicate
that the sample size was too small to produce a meaningful estimate and should be rounded to 0.

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Estimate of Non fatal Crashes Involving Emergency Vehicles
by Year, Emergency Vehicle and Emergency Use
GES 1991-2000

NOTE: CRASHES MAY BE COUNTED MORE THAN ONCE ACROSS THE EMERGENCY VEHICLE
FOR EXAMPLE: A POLICE VEHICLE, AND AN AMBULANCE MAY BOTH BE INVOLVED IN THE CRASH AND THE CRASH IS COUNTED TWICE
ONCE FOR THE POLICE VEHICLE AND ONCE FOR THE AMBULANCE

YEAR		Injury				Property Damage Only				Total			
		Emergency Use				Emergency Use				Emergency Use			
		Not In Emergency Use	Unknown, If Emergency Use	In Emergency Use	Total	Not In Emergency Use	Unknown, If Emergency Use	In Emergency Use	Total	Not In Emergency Use	Unknown, If Emergency Use	In Emergency Use	Total
1996	Fire Truck/Car	139	0	318	458	960	418	1,445	2,823	1,100	418	1,763	3,281
	Police	4,179	98	3,469	7,745	8,255	0	6,541	14,797	12,434	98	10,010	22,542
	Ambulance	110	0	1,347	1,457	2,218	0	1,096	3,314	2,328	0	2,442	4,770
1997	Fire Truck/Car	299	12	652	963	640	0	2,315	2,956	939	12	2,967	3,918
	Police	4,230	3	3,566	7,798	9,808	91	6,309	16,208	14,038	94	9,875	24,006
	Ambulance	451	0	1,756	2,207	1,383	0	927	2,310	1,834	0	2,683	4,517
1998	Fire Truck/Car	89	12	680	781	667	0	1,741	2,407	756	12	2,421	3,188
	Police	4,036	576	4,247	8,859	10,570	2,256	7,215	20,042	14,606	2,832	11,462	28,900
	Ambulance	903	47	902	1,852	771	958	1,491	3,220	1,674	1,005	2,393	5,072
1999	Fire Truck/Car	152	9	526	686	1,297	1,458	2,853	5,608	1,448	1,467	3,379	6,294
	Police	4,631	1,335	4,132	9,898	12,168	3,251	6,292	21,712	16,600	4,586	10,424	31,610
	Ambulance	811	99	1,213	2,123	1,102	695	2,596	4,393	1,913	794	3,809	6,516
2000	Fire Truck/Car	165	118	604	867	1,043	529	1,684	3,256	1,188	646	2,288	4,123

Note: The 'Estimate of Crashes' numbers are not actual counts, but estimates of the actual counts.
The estimates are calculated from data obtained from a nationally representative
sample of crashes collected through NHTSA's General Estimates System (GES).
Estimates should be rounded to the nearest 1,000. Estimates less than 500 indicate
that the sample size was too small to produce a meaningful estimate and should be rounded to 0.

**Count of Emergency Vehicles Involved in Fatal Crashes
by Year and Emergency Use
Fatality Analysis Reporting System(FARS) 1990-1999 -Final & 2000 ARF**

YEAR	Emergency Use				Total	
	Not in Emergency Use		In Emergency Use			
	Number	Percent	Number	Percent	Number	Percent
1990	105	58.7	74	41.3	179	100.0
1991	115	57.5	85	42.5	200	100.0
1992	104	52.0	96	48.0	200	100.0
1993	94	53.7	81	46.3	175	100.0
1994	64	42.7	86	57.3	150	100.0
1995	104	59.8	70	40.2	174	100.0
1996	71	48.0	77	52.0	148	100.0
1997	72	49.0	75	51.0	147	100.0
1998	59	46.5	68	53.5	127	100.0
1999	52	51.0	50	49.0	102	100.0
2000	94	55.6	75	44.4	169	100.0

CERTIFICATE OF SERVICE

I hereby certify that on this 30th day of July, 2003, a copy of the foregoing "Comments of Alertcast Communications, LLC" was hand delivered or mailed first-class, postage prepaid, to the following:

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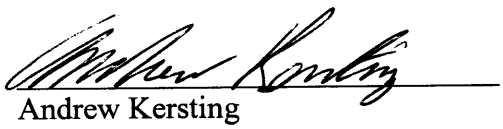

Andrew Kersting

* Hand Delivered