Wireless Carrier Waiver Summary Table 09/05/01

Carrier	FCC	Voicestream	Nextel	Cingular		AWS		1			
				Part 1	Part 2	Part 1	Part 2	Verizon ¹	Sprint	Qwest	Alltel
Technology Type		GSM	IDEN	GSM	TDMA	GSM	TDMA	CDMA	CDMA	CDMA	CDMA
		E-OTD	AGPS	E-OTD	TRUEPOS	E-OTD	Net. Overlay ²	AGPSAFLT	AGPSAFLT	AGPSAFLT	AGPS
Solution Type		Handset	Handset	Handset	Network	Handset	Network	Handset	Handset	Handset	Handset
Handset Activations											
Start date	10/01/01	Before 10/1/1	10/01/02	10/01/01		100% of		12/01/01	10/01/01	03/31/02	07/01/02
25%	12/31/01	Before 10/1/1	none	12/31/01		All		07/31/02	None given	06/30/02	09/30/02
50%	06/30/02	10/01/01	12/01/03	06/30/02		Handsets		03/31/03	None given	12/31/02	03/31/03
100%	12/31/02	03/31/02	12/01/04	09/30/02		Sold		12/31/03	12/31/02	03/31/03	09/30/03
95% Penetration	12/31/05	12/31/05	12/31/05	12/31/05		Day 1		12/31/05	12/31/05	12/31/05	12/31/05
Handset 67%	50m	100m	50m	100m	N/A	100m	N/A	50m	50m	50m	50m
Accuracy 95%	150m	300m	150m	300m		300m		150m	150m	150m	150m
Accuracy Compliance Date	10/01/01	10/01/03	10/01/02	10/01/03		10/01/03		12/01/01	10/01/01	12/31/01	03/31/02
PSAP Availability Dates	Implement	All 10/01/01				All as					
Lucent areas	10/01/01			N/A		GSM		04/01/02	10/01/01	12/31/01	03/31/02
Nortel areas	10/01/01			12/01/02		activated		08/01/02	08/31/02-?	09/30/02	06/30/02
Motorola areas	10/01/01			N/A				03/01/03	N/A	N//A	12/31/02
Ericson	10/01/01			12/01/02				N/A	N/A	N/A	N/A
Network Implement Dates											
PSAP 50% ³	10/01/01				by 12/31/02		11/01/01				
PSAP 100%	10/01/02				2000 cells		to 12/31/02		İ	İ	
					all PSAP		for 1600 cells,				
					Phase II req		then current				
					activated						
Accuracy 67%	100m				100m		100m				
95%	300m				300m		300m				
Accuracy Compliance Date	10/01/01				12/31/02		12/31/02				
Backup Network		12/31/01		01/01/02 to		Not Needed		None			
Implementation Dates				06/30/02		100%		Given			
Backup method	None	NSS	None	NSS	N/A	Headsets	N/A	EFLT	None	None	None
Backup accuracy		1000m		1000m		Enabled		250-350m			

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¹ Verizon Wireless will employ an 'interim' full network solution for the St Louis metro area (Illinois/Missouri, St. Clair, Madison and St. Louis Counties), Chicago metro area (Illinois/Indiana, Cook and Lake (IN) Counties), and Houston, TX metro area between 10/01/01 and 04/01/02.

² Pulling down its MNLS solution, AWS is currently in contractual discussions with both TruePosition and Grayson Wireless for the use of their network overlay technologies.

³ As of October 1, 2001, within 6 months of a PSAP request, carriers employing network-based location technologies must provide Phase II information for at least 50% of the PSAP's coverage area or population. Within 18 months of a PSAP request, carriers must provide Phase II information for 100 percent of the PSAP's coverage area or population. Note: for handset-based solutions, the coverage is based on percentages of handsets sold (with 25%, 50% and 100% levels, plus 95% of total customer base).

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Comments

- Verizon Wireless has "interim" network solution started for some PSAPs (at 50% coverage level) in Chicago metro area, St. Louis metro area and Houston metro area, reaching 100% coverage level by 04/01/02.
- Sprint PCS has implemented its AGPS/AFLT solution with 39 PSAPs covering Rhode Island.
- Voicestream could implement with PSAPs with 50% of its handset sales E-OTD enabled
- Alltel will have a Phase II test in progress in Jacksonville, FL.

The FCC order states for Phase II, a PSAP will have it 10/01/01 or within 6 months of a request, whichever is later. The order clarifies that for network-based solutions that means 50% of the PSAP coverage area then and 100% within an additional year. While carriers are seeking waivers regarding the 10/01/01 date because of not being capable, the new dates proposed are "capability" dates, not implementation dates. (For example, if a handset-solution carrier states a waiver is needed because all the equipment won't be capable until 07/01/2002, which does not necessarily mean that it becomes the date when all PSAPs which have submitted valid request letters will start receiving Phase II data from that carrier.)

Realizing the above and utilizing the data provided in the chart, the following would be the implementation schedule, as per the various waiver requests.

Voicestream—Sometime after 10/01/01 (with 50% of all new handsets compliant)

Sometime after 12/31/01 for NSS (anywhere served by carrier)

Nextel—Sometime after 10/01/02

Cingular GSM—Sometime after 12/01/02, for E-OTD.

Sometime after 01/01/02 for NSS

Cingular TDMA—By 12/31/02, no exact start date, all existing phase II PSAP requests activated for True Position

AT&T Wireless GSM—Sometime after any part of new network is activated for service

AT%T Wireless TDMA—Between 11/01/01 and 12/31/02 for existing 1600 cell sites (current requests). Balance within six months of request.

Verizon Wireless—Sometime after 04/01/02 for AGPS/AFLT.

No starting date available for EFLT and PSAP implementation.

Sprint PCS—Sometime after 10/15/02, unless on existing schedule, for AGPS/AFLT.

Qwest Wireless—Sometime after 03/31/02 for AGPS/AFLT.

Alltel—Sometime after 07/01/02 for AGPS, dependent on start of GPS-enabled handset sales