

TO: IGC Delegates 24Jan06
SUBJ: Mar06 IGC Meeting ANDS Report Addendum
FROM: SSA RTCA representative

Submitted herewith is the GPS receiver census data which I just received from GPS World; it was missing from my previously submitted report:

Although it's an incomplete census, the best I was able to get shows 527 receivers from 73 manufacturers, one of the missing being Garmin. The point of course is that there are a lot of receivers! Of the data I received, the lightest weight one is 0.3 grams; the heaviest 75 lbs! Tracked signals can include L1 C/A and/or PPS, L2, L5, WAAS, SBAS, EGNOS, MSAS, GLONASS, GALILEO & DGPS. Most have at least 12 channel; one has 54 channels and 36 channels is not uncommon. The least is 8 channels. The number of satellites tracked varies from 6 to 32, with many tracking either all in view or 24. Sizes vary; some are 2.5" diameter, some as small as 4 × 4 mm. One can time to 1 ns; 20 ns is common as is 1 s. Position accuracy claimed on one is 0.1 m; most are in the 1–10 m range. Fix update rate on one is 1microsecond; one is 100 Hz. Power consumption in watts varies from 0.028 to 21. Cold start times range from 30" to 30'. Warm starts vary from <2" to 15'. Reacquisition ranges from 100ms to 2'. Operating temperatures vary, with the lowest being -55 and the highest +104, degrees Celsius.

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