

**BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D.C. 20554**

In the Matter of	)	
	)	
Globalstar Licensee LLC	)	Call Sign S2115
GUSA Licensee LLC	)	Call Sign E970381
	)	File No. SAT-STA-20081215-00231
Modification of Authority to Operate a	)	
Mobile Satellite System in the 1.6 GHz	)	
Frequency Band	)	
	)	

**PETITION TO DENY OF IRIDIUM SATELLITE LLC**

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## SUMMARY

In the instant proceeding, Globalstar Licensee LLC (“Globalstar”) asks the Commission for a waiver and special temporary authority (“STA”) in order to allow its operations in the spectrum that has been reassigned to Iridium Satellite LLC (“Iridium”) to continue and expand indefinitely. Globalstar was required to cease operation on spectrum reallocated to Iridium on December 14, 2008. However, tests recently commissioned by Iridium show conclusively that Globalstar continues to operate on this spectrum internationally, in direct violation of the Commission’s orders and the terms of Globalstar’s modified licenses, and despite a letter from the International Bureau specifically directing Globalstar to comply with the terms of its licenses.

Globalstar’s intentional violation of the terms of its licenses and its willful disregard of the FCC staff’s specific direction require dismissal of Globalstar’s pleading out of hand. Indeed, Globalstar’s actions call into question its basic fitness to be a licensee, and, in addition to dismissing the waiver petition as fatally defective, the Commission should immediately bring an enforcement proceeding to secure Globalstar’s compliance with its license requirements and to determine what sanctions are appropriate. A prompt dismissal and the initiation of an enforcement proceeding are particularly justified here given that Globalstar has had more than a year’s notice of the spectrum reassignment.

Even putting aside the issue of compliance with the Commission’s Rules, the Commission should reject the waiver request. Globalstar has provided no basis for granting a waiver. *First*, Globalstar’s assertions of harm are belied by the record and its own statements in its pleading, and are not supported by any technical evidence. Notably, while Globalstar claims, without support, that it will not have sufficient spectrum for its operations overseas under the terms of its modified space-station license, the company side steps the fact that it has been able to handle traffic flow for the United States—presumably its highest use region—where it has

been operating without the reassigned spectrum. *Second*, the waiver that Globalstar seeks is at odds with the limited transitional relief contemplated by the Commission. Globalstar does not ask for the waiver to enable it to address short-term dislocations associated with moving its existing operations out of the reassigned spectrum, but rather seeks a change that would permanently enable it not only to continue but to *expand* operations on spectrum that has been reassigned for Iridium's exclusive use.

Fundamentally, Globalstar's request is simply a *third* attempt to seek reconsideration of arguments already considered and decided by the Commission more than one year ago in the *Reconsideration Order*. If the *Reconsideration Order* and *Modification Order* are to have any meaning at all, the Commission must deny Globalstar's waiver request.

Finally, Globalstar's request for special temporary authority was mooted by the Commission's letter reminding Globalstar that it must comply with the terms of its licenses during the pendency of its waiver request. To the extent it is not already moot, it should be denied. The request, made pursuant to Section 25.120 of the Commission's Rules, fails to meet the clear conditions of that rule: it was not timely filed, nor did it include the requisite justification for its tardiness. Moreover, Globalstar fails to show that it qualifies for the requested special temporary authority, as the relief it seeks is neither "special" nor "temporary."

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Iridium Satellite LLC,<sup>1</sup> by its attorneys and pursuant to 47 C.F.R. § 25.154, submits this petition to deny the above-captioned request of mobile satellite service (“MSS”) licensee Globalstar Licensee LLC for relief from the Commission’s *Modification Order* in the form of a waiver and special temporary authority.<sup>2</sup>

**I. BACKGROUND**

Well over a year ago, on November 9, 2007, the Commission released the *Reconsideration Order* in IB Docket No. 02-364. The *Reconsideration Order* set out a new plan for redistributing the spectrum allocated for Big LEO MSS providers by modifying the frequencies on which they may operate their FCC-licensed U.S. earth stations and FCC-licensed

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<sup>1</sup> Iridium is the exclusive licensee of the spectrum to which Globalstar Licensee LLC (“Globalstar”) seeks access and is therefore a party in interest to this proceeding. *Cf. Applications of the Trustees of Indiana University Indianapolis, Indiana*, 8 FCC Rcd 5555, 5557 (¶ 11) (1993) (“Upon the filing of its mutually exclusive application, IBEC became a party in interest, the status required of a petitioner by Section 309(d)(1) of the Act.”).

<sup>2</sup> See *Globalstar Licensee LLC, GUSA Licensee LLC, Modification of Authority to Operate a Mobile Satellite System in the 1.6 GHz Frequency Band*, Call Sign S2115, Call Sign E970381, Request for Waiver and Request for Special Temporary Authority (filed Dec. 15, 2008) (“Globalstar Request”).

global satellite space stations.<sup>3</sup> That order took effect on January 14, 2008. On May 7, 2008, the FCC released an *Order Proposing Modifications* to effectuate, through license modifications, the spectrum reassignment established in the *Reconsideration Order*.<sup>4</sup> After considering and rejecting a Globalstar protest of the *Order Proposing Modifications*, the Commission released the *Modification Order* on October 15, 2008,<sup>5</sup> which took effect sixty days later on December 14, 2008.

Globalstar appealed the *Reconsideration Order*<sup>6</sup> and has also sought reconsideration of the *Modification Order*,<sup>7</sup> but never sought to stay the effectiveness of either order.<sup>8</sup> Moreover,

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<sup>3</sup> *Review of the Spectrum Sharing Plan Among Non-Geostationary Satellite Orbit Mobile Satellite Service Systems in the 1.6/2.4 GHz Bands*, Second Order on Reconsideration, 22 FCC Rcd 19733 (2007) (“*Reconsideration Order*”)

<sup>4</sup> *Globalstar Licensee LLC, GUSA Licensee LLC, Iridium Constellation LLC, Iridium Satellite LLC, Iridium Carrier Services, Modification of Authority to Operate a Mobile Satellite System in the 1.6 GHz Frequency Band*, Call Sign S2115, Call Sign E970381, Call Sign S2110, Call Sign E960132, Call Sign E960622, Order Proposing Modifications, 23 FCC Rcd 7984 (2008) (“*Order Proposing Modifications*”).

<sup>5</sup> *Globalstar Licensee LLC, GUSA Licensee LLC, Iridium Constellation LLC, Iridium Satellite LLC, Iridium Carrier Services, Modification of Authority to Operate a Mobile Satellite System in the 1.6 GHz Frequency Band*, Call Sign S2115, Call Sign E970381, Call Sign S2110, Call Sign E960132, Call Sign E960622, Order of Modifications, FCC 08-248, 2008 WL 4601493 (¶ 1) (rel. Oct. 15, 2008) (emphasis added) (“*Modification Order*”).

<sup>6</sup> Petition for Review, No. 08-1046 (filed D.C. Cir. Feb. 5, 2008).

<sup>7</sup> *See Globalstar Licensee LLC, GUSA Licensee LLC, Iridium Constellation LLC, Iridium Satellite LLC, Iridium Carrier Services, Modification of Authority to Operate a Mobile Satellite System in the 1.6 GHz Frequency Band*, Call Sign S2115, Call Sign E970381, Call Sign S2110, Call Sign E960132, Call Sign E960622, Petition for Reconsideration of Globalstar Licensee LLC and GUSA Licensee LLC (filed Nov. 14, 2008) (“*Globalstar Petition for Reconsideration*”).

<sup>8</sup> *See* 28 U.S.C. § 2349(b) (“The filing of the petition to review does not of itself stay or suspend the operation of the order of the agency . . . .”); 47 U.S.C. § 405 (providing that a petition for reconsideration shall not “excuse any person from complying with or obeying any order, decision, report, or action of the Commission, or operate in any manner to stay or postpone the enforcement thereof”).

while the *Reconsideration Order* and *Modification Order* afforded Globalstar an opportunity to seek market specific waivers to prevent transitional harms, Globalstar criticized this process as inadequate and illusory and refrained from making any waiver request before the effective date of the license modifications.

Now, in a request filed one day *after* the license modifications took effect, Globalstar seeks relief from the spectrum reassignment effectuated by the *Modification Order*. The company—which relies both on space stations and regional, terrestrial “gateways”—asks the Commission for a waiver that would allow it to continue operating its space stations on the reassigned spectrum in *every* international region where Globalstar had been using the now-reassigned spectrum.<sup>9</sup>

Globalstar also asks for special temporary authority to continue operating in that manner during the pendency of its waiver request. Two days after Globalstar filed its request, on December 17, 2008, the International Bureau sent the company a letter reminding it to operate in full compliance with its licenses during the pendency of its filing.<sup>10</sup> The public record does not indicate that Globalstar has ever responded to the Bureau’s letter.

On January 16, 2009, almost exactly one month after the International Bureau reminded Globalstar of its obligations to cease operating on the spectrum that had been reassigned to Iridium, Iridium commissioned a series of tests using a Globalstar handset in the United

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<sup>9</sup> Globalstar seeks a waiver for all eight international gateways that it previously identified as the only gateways affected by the spectrum reassignment. *Compare* Globalstar Request 12-15, with *Globalstar Licensee LLC, GUSA Licensee LLC, Iridium Constellation LLC, Iridium Satellite LLC, Iridium Carrier Services, Modification of Authority to Operate a Mobile Satellite System in the 1.6 GHz Frequency Band*, Call Sign S2115, Call Sign E970381, Call Sign S2110, Call Sign E960132, Call Sign E960622, Reply of Globalstar to Opposition of Iridium, Affidavit of Anthony J. Navarra ¶ 4 (filed June 23, 2008) (“Globalstar Protest Reply”).

<sup>10</sup> Letter from Roderick K. Porter, Deputy Bureau Chief, International Bureau, FCC, to William T. Lake, Counsel to Globalstar LLC, Call Sign S2115 (Dec. 17, 2008) (“Porter Letter”).

Kingdom.<sup>11</sup> These tests confirm that Globalstar is still operating in the United Kingdom on frequencies that have been reassigned globally for Iridium's exclusive use. Globalstar's operation on these frequencies represents a direct, knowing and willful violation of the terms of its licenses and the specific direction given by the International Bureau.

## **II. ARGUMENT**

Globalstar's filing is defective in several respects. *First*, and most critically, Globalstar's continued use of the spectrum in violation of the terms of its licenses and the Commission's direct orders require prompt dismissal of Globalstar's pleading. Globalstar's knowing and willful violation of the terms of its licenses also call into question Globalstar's basic qualifications to be an FCC licensee, and the FCC should immediately launch an enforcement proceeding to require immediate compliance with its license requirements and to determine what sanctions are appropriate in light of its conduct. *Second*, even aside from its violation of the Commission's orders, Globalstar has failed to justify its waiver request. Its assertions of harm are belied by the record and its own statements in its pleading and, further, are not supported by any technical evidence. In addition, the broad-reaching waiver that Globalstar seeks is fundamentally at odds with the limited transitional relief contemplated by the Commission. *Third*, Globalstar's filing is ultimately not a serious waiver request, but rather part of its continuing effort to effectively reverse the Commission's considered decision to redistribute the spectrum allocated to Globalstar and Iridium. *Fourth*, to the extent that Globalstar's request for special temporary authority has not been mooted by the International Bureau's December 17 letter, it should be denied on both procedural and substantive grounds.

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<sup>11</sup> TRaC Telecoms & Radio Ltd., Test Report: 8F1909WPR1 (Jan. 19, 2009) (attached as Exhibit A).



**A. Globalstar’s Filing Should Be Summarily Dismissed.**

Tests commissioned by Iridium show that Globalstar continues to operate on spectrum that has been re-assigned for Iridium’s exclusive use,<sup>12</sup> in direct violation of the terms of Globalstar’s licenses and despite a letter from Commission staff specifically reminding Globalstar that “it is required to operate in full compliance” with its modified space- and earth-station licenses “during the pendency of the Commission’s consideration of Globalstar’s recently filed waiver and STA requests.”<sup>13</sup> Globalstar’s filing all but confirms Iridium’s findings, by representing that Globalstar has shut down its operations on the reassigned spectrum in the United States,<sup>14</sup> but saying nothing about its operations overseas where it is now requesting permission to “continue” operations.<sup>15</sup>

Globalstar’s failure to comply with the terms of its modified licenses mean, at a minimum, that its request for a waiver of the Commission’s Rules must be dismissed out of hand. The core idea of a waiver is that it permits a limited *exception* to an otherwise generally applicable rule. Indeed, “[t]he very essence of waiver is the assumed validity of the general rule.”<sup>16</sup> Unless and until the Commission grants a regulated entity a waiver to a rule, that entity must comply with the rule. Thus, it is the FCC’s stated policy that a regulated entity must come into and remain in compliance with a rule during the pendency of a waiver request. As the Commission has explained, “the mere filing of a waiver request obviously does not excuse a

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<sup>12</sup> *See id.*

<sup>13</sup> Porter Letter at 1.

<sup>14</sup> Globalstar Request 10.

<sup>15</sup> *Id.* at 2, 20.

<sup>16</sup> *WAIT Radio v. FCC*, 418 F.2d 1153, 1158 (D.C. Cir. 1969).

company from noncompliance.”<sup>17</sup> Globalstar itself has acknowledged that it “has an obligation, as a Commission licensee, to operate solely within the confines of its authorization.”<sup>18</sup>

To permit Globalstar, or any regulated entity, to seek a waiver of a Commission rule without having first come into compliance with the rule (or otherwise requested a stay of its applicability) would turn the agency’s regulatory regime on its head. If the FCC did not enforce its policy by declining to consider a party’s request for waiver of a rule where the party is not in compliance with that rule, regulated entities would simply ignore the Commission’s rules until the agency actually denied them a waiver to keep doing so. The burden of ensuring universal compliance would shift from the regulated entities themselves to the FCC, and the agency would end up having to affirm its rules repeatedly on a case-by-case basis through the waiver process in order to ensure compliance. Absurdly, the waiver process would take on greater import than the rules themselves.

Permitting an entity to apply for a waiver without first complying with the rule would also render the Commission’s framework for stays and special temporary authority meaningless. These special forms of emergency relief are designed precisely to accommodate regulated entities that have a justifiable need to continue operations in the face of a general FCC rule that would otherwise force them to cease operating. But if regulated entities were able simply to operate in noncompliance and simultaneously seek a waiver, without fear that the Commission would first require compliance, no parties would ever seek a stay or special temporary authority,

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<sup>17</sup> *In re AT&T Wireless Services, Inc.*, 17 FCC Rcd 9903, 9908 (¶ 13) (2002).

<sup>18</sup> Letter from William F. Adler, Globalstar Licensee LLC, to Helen Domenici, FCC, at 7 (Dec. 5, 2008).

especially given that such relief requires a showing of irreparable harm<sup>19</sup> or extraordinary circumstances.<sup>20</sup>

Circumvention of the stay and temporary relief rules is especially problematic where, as here, the regulated entity has had ample notice and opportunity to file properly for a stay or special temporary authority. The Commission issued its spectrum reassignment order well over a year ago. The agency then proposed, more than six months ago, to modify Globalstar's licenses pursuant to the spectrum reassignment order and to entertain requests by Globalstar for limited waivers. And finally, more than two months ago, the agency formally modified the licenses, reminded Globalstar of the possibility of limited waivers, and provided sixty days—until December 14, 2008—before the modification would take effect. At no point in this lengthy process did Globalstar file for a stay or seek special temporary authority to continue operating. Not until *after* the license modifications took effect on December 14 did Globalstar file for any relief.

The Commission should not permit Globalstar to upend the agency's regulatory regime and should ensure that Globalstar is complying with its modified licenses and that no further violations will occur before entertaining any request for a waiver.<sup>21</sup> Indeed, Globalstar's

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<sup>19</sup> *Applications of Alvin Lou Media, Inc. and KM Communications, Inc.*, 19 FCC Rcd 806, 812 n.44 (¶ 14 n.44) (2004) (citing *Va. Petroleum Jobbers Ass'n v. Fed. Power Comm'n*, 259 F.2d 921, 925 (D.C. Cir. 1958), and *Washington Metro. Area Transit Comm'n v. Holiday Tours, Inc.*, 559 F.2d 841, 842-43 (1977)).

<sup>20</sup> 47 C.F.R. § 25.120(b)(1); accord 47 U.S.C. § 309(f).

<sup>21</sup> *See, e.g., Cease and Desist Order To Be Directed Against Service Electric Cable TV, Inc.*, 32 FCC 2d 334, 339 (¶ 14) (1971) (“[A]s we have previously held upon numerous occasions, equities or other mitigating circumstances which might justify a waiver of the rules will not be considered until the CATV operator comes into compliance.”); *Cease and Desist Order To Be Directed Against Hampton Roads Cablevision Co.*, 30 FCC 2d 520, 523 (¶ 8) (1971) (“We have consistently held, and the courts have affirmed our holding, that equities or

intentional and willful violations of the terms of its licenses call into question Globalstar's basic qualifications to be a Commission licensee. The Commission has determined that license revocation is appropriate when a licensee has, like Globalstar, willfully and repeatedly failed "to operate substantially as set forth in [its] license."<sup>22</sup> Indeed, under the Commission's *Character Policy Statements*, Globalstar's willingness to violate the law bears greatly upon its proclivity to violate other laws and reflects poorly upon its character and fitness to hold an FCC license.<sup>23</sup> If Globalstar "is unwilling to obey the law with respect to" its own licenses and the *Modification Order*, it is "hardly irrational to conclude that" Globalstar "will be equally unwilling to obey FCC rules that require openness and honesty with the Commission."<sup>24</sup> As a result, the Commission should immediately launch an enforcement proceeding to require Globalstar to comply with its licenses, determine the scale and extent of Globalstar's violations of Commission orders, and determine what sanctions are appropriate in this case.<sup>25</sup>

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other mitigating circumstances which might justify a waiver of the rules will not be considered until the CATV operator comes into compliance.").

<sup>22</sup> 47 U.S.C. § 312(a)(3); *see also id.* § 312(a)(4) (allowing the FCC to revoke a license "for willful or repeated violation of, or willful or repeated failure to observe any provision of this chapter or any rule or regulation of the Commission authorized by this chapter or by a treaty ratified by the United States").

<sup>23</sup> *Policy Regarding Character Qualifications in Broadcast Licensing*, 102 FCC 2d 1179, 1190-91 (¶ 23) (1986) (focusing on "misconduct which violates the Communications Act or a Commission rule or policy, and . . . certain specified nonFCC misconduct which demonstrate[s] the proclivity of an applicant to deal truthfully with the Commission and to comply with [its] rules and policies"); *Policy Regarding Character Qualifications in Broadcast Licensing*, 5 FCC Red 3252, 3252 (¶ 3) (1990) ("[A] propensity to comply with the law generally is relevant to the Commission's public interest analysis, and that an applicant's or licensee's willingness to violate other laws, and, in particular, to commit felonies, also bears on our confidence that an applicant or licensee will conform to FCC rules and policies.").

<sup>24</sup> *Contemporary Media, Inc. v. FCC*, 214 F.3d 187, 193 (D.C. Cir. 2000).

<sup>25</sup> The Commission has previously denied a waiver request and referred the matter to the Enforcement Bureau where the company had been on notice of a deadline for several years and

**B. Globalstar’s Request for a Waiver Is Without Merit.**

Even if the Commission does not summarily dismiss Globalstar’s filing because of Globalstar’s non-compliance with its modified licenses, the waiver request should be denied for lack of merit. To qualify for a waiver, Globalstar must show good cause,<sup>26</sup> which entails a showing of “particular facts [that would] make strict compliance inconsistent with the public interest.”<sup>27</sup> This standard requires that there be “a stronger public interest benefit in granting the waiver than in applying the rule” and that “the waiver [not] undermine the purposes of the rule.”<sup>28</sup> As discussed below, not only does Globalstar fail in its pleading to make this requisite showing for a waiver, it would be impossible for the company to do so.

**1. Globalstar’s Assertions of Harm Are Unsubstantiated and Inconsistent with the Facts.**

As an initial matter, Globalstar’s broad claims of harm are belied by the record and its own statements. Globalstar asserts, without any support, that it will not have sufficient spectrum for its operations overseas under the terms of its modified space-station license. However, the company also represents that it has shut down its operations on the reassigned spectrum for the United States in compliance with the *Modification Order*. Indeed, it states that it did so

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then filed its waiver request only two days before the deadline. *See Request for a Limited Waiver of United States Cellular Corporation*, 22 FCC Rcd 360 (2007); *see also United States Cellular Corporation*, Notice of Apparent Liability for Forfeiture, 22 FCC Rcd 16424 (2007).

<sup>26</sup> 47 C.F.R. § 1.3.

<sup>27</sup> *Windstream Petition for Conversion to Price Cap Regulation and for Limited Waiver Relief*, Order, 23 FCC Rcd 5294, 5298 n.31 (¶ 8 n.31) (2008) (citing *Ne. Cellular Tel. Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990)).

<sup>28</sup> *Rainbow DBS Company LLC*, Memorandum Opinion and Order, 22 FCC Rcd 4272, 4274-75 (¶ 7) (2007) (citing *WAIT Radio*, 418 F.2d at 1157, and *Ne. Cellular*, 897 F.2d at 1166).

“[f]ollowing” the issuance of the *Reconsideration Order* in November 2007.<sup>29</sup> And while Globalstar once claimed that reduced spectrum rights in the United States would seriously affect its services,<sup>30</sup> it does not now report any difficulties stemming from this shutdown beyond a reduced “margin for growth.”<sup>31</sup> Considering that Globalstar’s most heavily used gateways are in the United States, its apparent ability to handle traffic flow for the United States without the reassigned spectrum belies any claim that it would be unable to do so abroad.

Further, though Globalstar may theoretically “offer” a number of services, due to the continuing degradation of its S-band satellites, the only service it can reliably provide is a simplex one-way data paging service.<sup>32</sup> As the Commission is aware, Globalstar’s satellites are failing, and thus it cannot provide fully functioning two-way voice or data services.<sup>33</sup> Moreover,

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<sup>29</sup> Globalstar Request 10.

<sup>30</sup> See Joint Comments of L/Q Licensee, Inc., Globalstar, L.P. and Globalstar USA, L.L.C., IB Docket No. 02-364, at 5-6 (filed July 11, 2003).

<sup>31</sup> Globalstar Request 11.

<sup>32</sup> See, e.g., Globalstar, Inc. SEC Form 10-Q, (filed Nov. 10, 2008) (“[S]ubstantially all of our current satellites launched before 2007 have experienced partial failures and degraded performance of their S-band downlink communications capabilities, and we currently believe that by early 2009 none of these satellites will be able to support two-way communication services.”); see also Letter from R. Michael Senkowski, Counsel, Iridium Satellite LLC, to Marlene H. Dortch, Secretary, FCC, IB Docket 02-364 (May 9, 2007).

<sup>33</sup> As Globalstar stated in its application to launch its second-generation constellation, “the ongoing degradation of the first-generation constellation caused by the S-band subsystem antenna anomalies in most of its first-generation satellites has resulted in Globalstar’s inability at certain times of the day, to provide voice and duplex data services throughout its coverage area.” See *Globalstar Licensee LLC and GUSA Licensee LLC*, Modification Application of Globalstar Licensee LLC at 14, File No. SAT-MOD-20080904-00165, at 14 (filed Aug. 29, 2008); see also *id.* at 4 n.5 (stating also that “Globalstar’s cash flow has dropped significantly since its S-band service began to deteriorate about 18 months ago because few customers are using the voice service”); *Globalstar Licensee LLC, Application for Modification of License for Operation of Ancillary Terrestrial Component Facilities*, Order and Authorization, File No. SAT-MOD-20080516-00106, FCC 08-254, ¶ 15 (rel. Oct. 31, 2008). Thus, Globalstar admits in this filing

coverage analyses and surveys of current Globalstar service strongly indicate that Globalstar's end-to-end duplex coverage is at most 50% of what it used to be, due to the S-band satellite failures. Globalstar cannot plausibly argue that it requires *more* spectrum now when the capacity and coverage of its satellites are decreasing rapidly.

The Commission must also reject Globalstar's claims of harm because the company has not provided any technical evidence or affidavits to support these claims.<sup>34</sup> The FCC generally requires applicants to provide sufficient technical data to support the applicant's request.<sup>35</sup> In fact, throughout the spectrum reassignment proceeding both the FCC and Globalstar have called for the provision of detailed technical information from Iridium on its spectrum needs,<sup>36</sup> which Iridium provided. Unlike Iridium, Globalstar has failed to offer any similar information that would aid the Commission in its decision-making here. In order to make a sufficient showing of harm to justify its requested waiver, Globalstar would, at a minimum, have to provide "detailed comments" and "technical information" "regarding its actual current spectrum use."<sup>37</sup>

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that it provides "duplex voice and data services" only "for stationary or relatively slow-moving users." Globalstar Request 5.

<sup>34</sup> The Commission requires petitions for "other forms of relief" to "contain specific allegations of fact . . . to support the specific relief requested, which shall be supported by affidavit of a person or persons with personal knowledge thereof." 47 C.F.R. § 25.154(a)(4).

<sup>35</sup> Globalstar should be required to provide the analogous technical information that would be required under the rules for permanent operating authority. *See id.* §§ 25.114, 25.143.

<sup>36</sup> *See Flexibility for Delivery of Communications by the Mobile Satellite Service Providers in the 2 GHz Band, the L-Band and the 1.6/2.4 GHz Bands; Review of Spectrum Sharing Plan Among Non-Geostationary Satellite Orbit Mobile Satellite Service Systems in 1.6/2.4 GHz Bands*, 18 FCC Rcd 1962, 2090 (¶¶ 267-68) (2003).

<sup>37</sup> *Id.* Globalstar similarly insisted, on multiple occasions, that Iridium *document* its need for spectrum. *See* Reply Comments of Globalstar, IB Docket No. 02-364 at 6 (filed Sep. 23, 2004) ("Brazenly, Iridium dares to question [the Commission's] conclusion, again *without documenting any need.*" (emphasis in original)); *see also* Petition for Reconsideration of Globalstar LLC, IB Docket No. 02-364, at 7 (filed Sep. 8, 2004); Letter from William T. Lake,

Globalstar, having complained vociferously on numerous occasions about the content of Iridium's filings, has submitted a waiver request that is "empty" and "[g]laringly absent" of "any technical showing,"<sup>38</sup> consisting merely of "generalized and anecdotal descriptions"<sup>39</sup> and "conclusory statements unsupported by data."<sup>40</sup>

There are four primary defects in the factual assertions that Globalstar makes in its waiver request. *First*, Globalstar has not provided any evidence or analysis of the actual channel loading on its system. Simply stating the number of subscribers, as Globalstar has done, says nothing about how those subscribers actually use spectrum, especially for satellite services. The Commission cannot accurately determine whether a waiver is necessary without knowing, at a minimum, the actual loading suggested by Globalstar in the L-band for: (1) its MSS voice and data services (Globalstar suggests this requires one dedicated access channel and one or more traffic channels based on demand); (2) its aviation services, including demonstration that the loading of this channel is so significant as to require a standalone channel; and (3) its simplex data/telemetry services of 2.5 MHz.<sup>41</sup>

*Second*, Globalstar has not provided the Commission with its historic loading information on the L-band spectrum. That information would no doubt demonstrate that Globalstar was previously able to handle simplex data and heavy loading of MSS voice and data services when

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Counsel, Globalstar, Inc. to Marlene H. Dortch, Secretary, FCC, IB Docket No. 02-364 (Feb. 7, 2007).

<sup>38</sup> Letter from William T. Lake, Counsel, Globalstar, Inc. to Marlene H. Dortch, Secretary, FCC, IB Docket No. 02-364, at 1-2 (Apr. 7, 2006).

<sup>39</sup> Reply Comments of Globalstar 4.

<sup>40</sup> Joint Reply Comments of L/Q Licensee, Inc., Globalstar, L.P. and Globalstar USA, L.L.C., IB Docket No. 02-364, at 10 (filed July 25, 2003).

<sup>41</sup> *See* Globalstar Request 6.



its S-band satellites were working. However, Globalstar's SPOT simplex one-way data device should not require heavy data usage. Now that the S-band satellite failures have led to significant losses in coverage and customers for the MSS voice and data services, with a concomitant decrease in the amount of traffic the system must handle, Globalstar should be required to demonstrate why it continues to need additional L-band capacity. The Commission cannot allow for inefficient loading by Globalstar (through unnecessary segmentation of customer traffic without any technical basis) to justify its waiver request.

*Third*, Globalstar has not provided any factual information that would justify its argument that aviation and simplex data services must have stand alone channels. Indeed, this new "justification" for waiver relief is flatly inconsistent with assertions made by Globalstar during the initial licensing process for its CDMA satellite network. In its 1991 application, Globalstar argued that: "With CDMA, overlapping footprints are not only allowed but actually are exploited to provide path diversity and to utilize the additional downlink power."<sup>42</sup> In arguing for approval of its chosen satellite technology, Globalstar argued forcefully that its CDMA technology allowed for frequency reuse and satellite beam overlap. Now, however, it argues that it must artificially segment different services on its satellite to prevent interference.

This "justification" is also inconsistent with Globalstar's past representations; the company previously has asserted that it does not set aside spectrum solely for aviation services: "Notably, these aviation channels are not, and have never been, dedicated solely to aviation traffic, because that would constitute an inefficient use of the spectrum. The channels are used also to provide MSS voice and data services throughout the country, especially during times of

---

<sup>42</sup> *Application of Loral Cellular Systems, Corp. for Authority to Construct a Low Earth Orbit Satellite System*, Globalstar System Application, File No. 19-DSS-P-91 (48), CSS 91-014, Technical Appendix at 8 (June 3, 1991).

emergency when increased demand for Globalstar's services requires Globalstar to focus its capacity on an affected area."<sup>43</sup> The Commission cannot grant a waiver without clarifying these seemingly contradictory statements to ensure that the limited MSS spectrum is used in the most efficient manner possible.

*Fourth*, Globalstar has not demonstrated that actual intrasystem interference would occur if it were to use adjacent spectrum in adjacent geography; nor has it explained how this purported need squares with its repeated assertions that it *can* share with other CDMA applicants.<sup>44</sup> Indeed, the original Big LEO band plan intent was to have *four* other co-channel, co-geographic CDMA systems.<sup>45</sup> The Commission cannot grant a waiver request without access to technical data that demonstrates how Globalstar's claimed ability to share with another CDMA applicant is consistent with its allegations in this underlying waiver request. Indeed, Globalstar itself has steadfastly argued that it designed its system to share with other CDMA licensees—a point that completely contradicts the statements in its pleading.<sup>46</sup>

## **2. Globalstar's Request Is Fundamentally at Odds with the Limited Transitional Relief Contemplated by the Commission.**

While Globalstar has failed utterly in showing that it will be harmed by compliance with its modified licenses, even if the company had provided a substantiated showing of harm it could

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<sup>43</sup> Letter from William T. Lake, Counsel, Globalstar, Inc. to Marlene H. Dortch, Secretary, FCC, IB Docket No. 02-364, at 3 (Apr. 17, 2006).

<sup>44</sup> *See e.g.*, Letter from William T. Lake, Counsel, Globalstar, Inc. to Marlene H. Dortch, Secretary, FCC, IB Docket No. 02-364, at 5 (March 9, 2007).

<sup>45</sup> *See e.g.*, Report of the MSS Above 1 GHz Negotiated Rulemaking Committee, CC Docket No. 92-166 (Apr. 6, 1993).

<sup>46</sup> *See, e.g., Review of the Spectrum Sharing Plan Among Non-Geostationary Satellite Orbit Mobile Satellite Service Systems in the 1.6/2.4 GHz Bands*, IB Docket No. 02-364, Globalstar Reply to Opposition of Iridium Satellite, LLC, at 6 (filed Nov. 10, 2004).

not justify the waiver it seeks. Globalstar’s request is fundamentally inconsistent with the purpose of the waivers contemplated by the Commission. In the *Modification Order*, the FCC stated specifically that it would entertain waivers for “limited relief” in “certain parts of the world” in the event of “undue costs.”<sup>47</sup> This waiver process was intended to provide Globalstar with the leeway, where necessary, to transition its operations from the previous spectrum distribution to the modified one.<sup>48</sup> Indeed, it is precisely because of the limited scope of the waivers that Iridium did not oppose the waiver scheme.

Globalstar, however, does not seek a waiver to allow for the transition of existing operations out of the now-reassigned spectrum. To the contrary, it seeks the waiver not just to continue providing current services indefinitely, but to “expand [its] services” on the now-reassigned spectrum.<sup>49</sup> Globalstar goes so far as to argue that the waiver is necessary for future, *planned* uses of that spectrum, such as its ancillary-terrestrial-component (“ATC”) services in foreign jurisdictions and forecasted growth through its second generation system.<sup>50</sup> In fact, Globalstar admits that it intends to build new gateways to make use of the reassigned spectrum and eventually request additional waivers.<sup>51</sup> These future business plans do not justify a waiver,

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<sup>47</sup> *Modification Order* ¶ 41.

<sup>48</sup> *See, e.g., Improving Public Safety Communications in the 800 MHz Band*, 2008 WL 4758849, WT Docket 02-55, ¶ 15 (rel. October 30, 2008) (“While we find merit in Sprint’s proposal to relinquish its Mid-Band spectrum in stages tied to NPSPAC rebanding, we also agree with public safety representatives that it is appropriate to set an eventual deadline for Sprint to vacate the Interleaved Band regardless of NPSPAC rebanding progress. This will provide public safety with certainty regarding when such spectrum will become available to meet public safety demand, and will increase the spectral separation between Sprint and public safety.”).

<sup>49</sup> Globalstar Request 16.

<sup>50</sup> *Id.* at 5.

<sup>51</sup> *Id.* at 12 n.19.

as Globalstar has ample opportunity to adapt its plans to the new spectrum distribution. As the FCC has consistently found, “a licensee’s failure to comply with our rules because of a private business decision will not warrant a grant of a rule waiver.”<sup>52</sup>

This complete disregard for the Commission’s intent for the waivers is fully consistent with Globalstar’s cavalier approach to compliance with the Commission’s revised spectrum plan over the past six months. Although it has known since May 2008 that the FCC would entertain waivers for limited, transitional purposes, Globalstar made no effort to obtain such relief in time to transition its existing operations. Instead, it contended repeatedly that the notion of waivers was “unacceptable” and “[in]adequate[],”<sup>53</sup> and waited until *after* the license modifications took effect to file its request. Globalstar has always rejected the waiver regime proposed by the Commission and plainly continues to do so here.

**C. The Filing Is Simply Part of Globalstar’s Continuing Effort to Reverse the Commission’s Spectrum Reassignment.**

Ultimately, given its breadth and scope, Globalstar’s filing should not be seen as a serious waiver request, but rather a part of its continuing campaign to reverse the consequences of the Commission’s considered decision. Globalstar seeks a “waiver” in perpetuity for every

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<sup>52</sup> See *Styles Interactive, Inc. Application for Review of Denial of Petition for Reconsideration Seeking Waiver of IVDS Final Down Payment Deadline*, 12 FCC Rcd 17987, ¶ 8 (1997).

<sup>53</sup> See *Globalstar Licensee LLC, GUSA Licensee LLC, Iridium Constellation LLC, Iridium Satellite LLC, Iridium Carrier Services, Modification of Authority to Operate a Mobile Satellite System in the 1.6 GHz Frequency Band*, Call Sign S2115, Call Sign E970381, Call Sign S2110, Call Sign E960132, Call Sign E960622, Protest of Globalstar Licensee LLC and GUSA Licensee LLC at 22 (filed June 6, 2008); *Globalstar Protest Reply, Affidavit of Anthony J. Navarra* ¶ 9; see also *Globalstar Petition for Reconsideration 14-17; Globalstar Licensee LLC, GUSA Licensee LLC, Iridium Constellation LLC, Iridium Satellite LLC, Iridium Carrier Services, Modification of Authority to Operate a Mobile Satellite System in the 1.6 GHz Frequency Band*, Call Sign S2115, Call Sign E970381, Call Sign S2110, Call Sign E960132, Call Sign E960622, Reply of Globalstar to Opposition of Iridium at 9-10 (filed Dec. 1, 2008).

international gateway that was operating in the spectrum reassigned to Iridium.<sup>54</sup> In other words, it asks for permanent permission to continue, grow, and modify its business operations as if the Commission's *Reconsideration Order* and *Modification Order* never occurred. Thus, if the *Reconsideration Order* and *Modification Order* are to have any meaning, the Commission must deny Globalstar's waiver request. The waiver process cannot be used to "change the Commission's policy."<sup>55</sup>

In this respect, this filing is nothing more than a third attempt to seek reconsideration of issues that the Commission has examined and resolved. After ample notice and opportunity for comment, the FCC decided in the *Reconsideration Order* that the public interest would best be served by reassigning spectrum to Iridium's exclusive use.<sup>56</sup> As was its statutory right, Globalstar sought judicial review of the order, and that petition is currently pending. However, after the Commission issued the *Modification Order* to effectuate the spectrum reassignment, Globalstar improperly sought—in the guise of a petition for reconsideration of the *Modification Order*—a second opportunity to challenge the conclusions of the *Reconsideration Order*.<sup>57</sup> Globalstar now cloaks its third bite at the apple in the form of a waiver request.<sup>58</sup>

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<sup>54</sup> See *supra* note 9.

<sup>55</sup> *Columbia Comm'ns Corp. v. FCC*, 832 F.2d 189, 193 (D.C. Cir. 1987).

<sup>56</sup> See, e.g., *Reconsideration Order*, 22 FCC Rcd at 19739-40 (¶ 14).

<sup>57</sup> See *Globalstar Licensee LLC, GUSA Licensee LLC, Iridium Constellation LLC, Iridium Satellite LLC, Iridium Carrier Services, Modification of Authority to Operate a Mobile Satellite System in the 1.6 GHz Frequency Band*, Call Sign S2115, Call Sign E970381, Call Sign S2110, Call Sign E960132, Call Sign E960622, Opposition of Iridium Satellite LLC to Petition for Reconsideration of Globalstar Inc. 5-9 (filed Nov. 24, 2008).

<sup>58</sup> *WITN-TV, Inc. v. FCC*, 849 F.2d 1521, 1525 (D.C. Cir. 1988) (affirming FCC's denial of a waiver that "would directly conflict with the allocation policy the FCC 'adjudged in the public interest'" in a previous order because "the FCC properly identified WITN's 'net loss' argument as an application for agency reexamination of the policy choices embodied in the" previous

**D. Globalstar’s Request for Special Temporary Authority Is Moot and, In Any Event, Should Also Be Denied.**

Globalstar’s additional request for special temporary authority “to continue to operate”<sup>59</sup> its space stations on the reassigned spectrum during the pendency of its waiver request should be denied as moot. The International Bureau made clear in its December 17 letter to Globalstar that it expected full compliance with the space-station license during the pendency of this request. As Globalstar did not respond to the letter or otherwise contest the agency’s position, the FCC has no reason to conclude that the request is still live.

Even if the STA request is not moot, Globalstar’s request—made pursuant to Section 25.120 of the Commission’s rules—is defective under that rule and should be summarily dismissed.<sup>60</sup> Section 25.120 unequivocally provides that a request for special temporary authority will not be considered unless one of two conditions is met: (1) the request “is received by the Commission at least 3 working days prior to the date of proposed . . . operation” or (2) the applicant makes a “showing of extraordinary reasons for the delay in submitting the request which could not have been earlier foreseen by the applicant.”<sup>61</sup> Globalstar has satisfied neither condition.

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order); *see also id.* at 1522 (“The waiver concept does not serve in this context, for petitioner’s plea, although ingeniously crafted, is in essence one for agency reconsideration of existing policy.”).

<sup>59</sup> Globalstar Request 20; *accord id.* at 2 (“Globalstar also requests special temporary authority (‘STA’) to *continue* using the frequencies between 1618.725-1621.35 MHz in the gateways identified below . . . .” (emphasis added)).

<sup>60</sup> 47 C.F.R. § 25.112(a) (“An application will be unacceptable for filing and will be returned to the applicant . . . if . . . [t]he application does not substantially comply with the Commission’s rules, regulations, specific requests for additional information, or other requirements.”).

<sup>61</sup> *Id.* § 25.120(a).

As to the first condition, Globalstar failed to file its application at least three business days prior to the date of proposed operation. Globalstar seeks special temporary authority to “continue” to operate on the reassigned spectrum.<sup>62</sup> The last possible date on which authority to “continue” operating could have begun was December 14, 2008—the effective date of the license modifications. A grant of special temporary authority beginning on any day thereafter could not properly be construed as authority to “continue” operating, but rather authority to “restart” operations. Accordingly, Globalstar should have filed its application by December 10, 2008, three business days before December 14. It did not do so and, indeed, by filing on December 15, failed to file at *any* time prior to the date of proposed operation.

As to the second condition, Globalstar does not provide any reasons for its delay in submitting its application, much less “extraordinary reasons” that “could not have been earlier foreseen.”<sup>63</sup> Under the circumstances, this failure is not surprising, as there is no plausible reason that Globalstar could not have filed this application well in advance of the deadline. Globalstar has known since November 9, 2007 about the spectrum reassignment and since October 15, 2008 that the license modifications would take effect on December 14. The company has had ample opportunity to prepare its filing, which does not include any information that Globalstar claims was only recently discovered or acquired. Indeed, as discussed above, Globalstar’s filing does not include any new technical evidence or affidavits and is largely a rehash of arguments that Globalstar has made in numerous previous filings.

But even if the request were not moot—which it is—and it complied with the requirements of the rule—which it does not—Globalstar fails to show that it qualifies for the

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<sup>62</sup> Globalstar Request 20.

<sup>63</sup> 47 C.F.R. § 25.120(a).

requested special temporary authority. Put simply, Globalstar seeks neither “special” nor “temporary” authority to operate. As discussed above, Globalstar’s assertions of harm are belied by the record and its own statements in its pleading and, in any event, are not supported by any technical evidence.<sup>64</sup> This hardly presents the requisite “extraordinary circumstances requiring temporary operations in the public interest.”<sup>65</sup> In addition, as also discussed above, Globalstar shows no indication that it ever intends to stop using, or transition its operations off of, the reassigned spectrum.

### **III. CONCLUSION**

For the foregoing reasons, Iridium respectfully requests that the Commission expeditiously enter an order dismissing or denying Globalstar’s requests for a waiver and special temporary authority and begin an enforcement proceeding to require immediate compliance with its license terms and to determine the extent of Globalstar’s willful and knowing violations of the terms of its licenses; whether Globalstar has the character qualifications expected of all Commission licensees; and, what sanctions are appropriate as a result of this conduct.

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<sup>64</sup> For grant of an STA, the Commission requires “the full particulars of the proposed operation including all facts sufficient to justify the temporary authority sought.” 47 C.F.R. § 25.120.

<sup>65</sup> *Id.* § 25.120(b)(1); *accord* 47 U.S.C. § 309(f). Since Globalstar’s request is actually aimed at delaying the effective date of the *Modification Order*, it should properly be evaluated against the even more demanding requirements for a stay. A stay is appropriate only where a party shows “(1) that it is likely to prevail upon the merits; (2) that it will suffer irreparable harm absent a stay; (3) that interested parties will not be harmed if a stay is granted; and (4) that the public interest favors grant of a stay.” *Alvin Lou Media*, 19 FCC Rcd at 812 n.44 (¶ 14 n.44). Globalstar has made no effort to meet the four prongs of this test, nor does its filing even come close to doing so.



Respectfully submitted,

*/s/ Joshua S. Turner*

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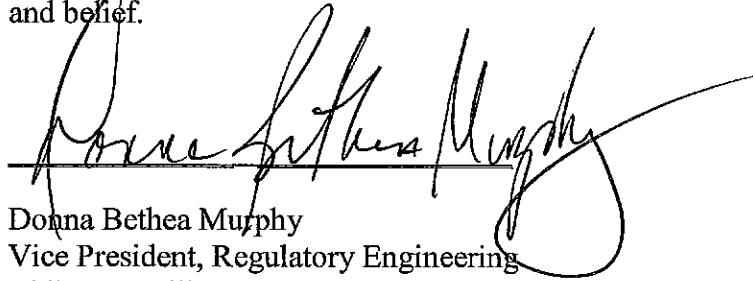
*Counsel to Iridium Satellite LLC*

January 21, 2009

**AFFIDAVIT OF DONNA BETHEA MURPHY**

I, Donna Bethea Murphy, am the Vice President, Regulatory Engineering, of Iridium Satellite LLC ("Iridium").

I hereby declare under penalty of perjury that I am qualified to speak on behalf of Iridium. I have reviewed the preceding Petition to Deny submitted on behalf of Iridium, and the factual statements therein are complete and accurate to the best of my knowledge, information, and belief.

A handwritten signature in black ink, reading "Donna Bethea Murphy", is written over a horizontal line. The signature is cursive and extends to the right of the line.

Donna Bethea Murphy  
Vice President, Regulatory Engineering  
Iridium Satellite LLC

Dated: January 21, 2009

**CERTIFICATE OF SERVICE**

I hereby certify that on January 21, 2009, I caused a true and correct copy of the foregoing to be served by first-class mail, unless noted otherwise, on the following:

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\_\_\_\_\_  
/s/ Joshua S. Turner

# EXHIBIT A

**Test Report** : 8F1909WPR1

**Applicant** : Access Partnership Ltd.

**Apparatus** : Qualcomm Handheld Satellite telephone

**Authorised by** :



: Max Leach, Principal EMC Engineer

**Issue Date** : 19<sup>th</sup> January 2009

**Authorised Copy Number** : *PDF*

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**Section 1:**

**Introduction**

**1.1 General**

This report contains an assessment of an apparatus against Electromagnetic Compatibility Standards based upon tests carried out on samples submitted to the Laboratory.

Test performed by: TRaC Telecoms & Radio Limited  
Unit E  
South Orbital Trading Park  
Hedon Road  
Hull, HU9 1NJ.  
United Kingdom.

Telephone: +44 (0) 1482 801801  
Fax: +44 (0) 1482 801806  
Email: [test@tracglobal.com](mailto:test@tracglobal.com)  
Web site: [www.tracglobal.com](http://www.tracglobal.com)

Tests performed by:



M. E. Leach, Radio Test Engineer

Report author..

As Above

**This report must not be reproduced except in full without prior written permission from KTL.**

## **1.2 Tests Requested By**

This testing in this report was requested by :

Access Partnership  
Grayton House  
498 Fulham Road  
London  
SW6 5NH  
United Kingdom

## **1.3 Manufacturer**

Not disclosed

## **1.4 Apparatus Assessed**

The following apparatus was assessed between 16/01/09 and 16/01/09:

Qualcomm Handheld Satellite telephone.

The object of the exercise was to determine if the Globalstar network was operating on frequencies above 1618.725 MHz, corresponding to channels greater than 8 or 9.



### 1.5 Test Result Summary

Full details of test results are contained within Appendix A. The following table summarises the results of the assessment.

The statements relating to compliance with the standards below apply ONLY as qualified in the notes and deviations stated in sections 1.6 to 1.7 of this test report.

Full details of test results are contained within Appendix A. The following table summarises the results of the assessment.

Test Type	Regulation	Measurement standard	Result
Observed Radiated Carrier Frequency	N/A	N/A	N/A

## 1.6 Notes Relating To The Assessment

With regard to this assessment, the following points should be noted:

The results contained in this report relate only to the items tested and were obtained in the period between the date of initial receipt of samples and the date of issue of the report.

The apparatus was set up and exercised using the configurations, modes of operation and arrangements defined in this report only.

Particular operating modes, apparatus monitoring methods and performance criteria required by the standards tested to have been performed except where identified in Section 1.7 of this test report (Deviations from Test Standards).

For emissions testing, throughout this test report, "Pass" indicates that the results for the sample as tested were below the specified limit (refer also to Section 2, Measurement Uncertainty).

Where relevant, the apparatus was only assessed using the monitoring methods and susceptibility criteria defined in this report.

All testing with the exception of testing at the Open Area Test Site was performed under the following environmental conditions:

Temperature	: 17 to 23 °C
Humidity	: 45 to 75 %
Barometric Pressure	: 86 to 106 kPa

All dates used in this report are in the format dd/mm/yy.

This assessment has been performed in accordance with the requirements of ISO/IEC 17025.

## 1.7 Deviations from Test Standards

There were no deviations from the standards tested to.

## Section 2:

## Measurement Uncertainty

### 2.1 Application of Measurement Uncertainty

The following table contains the measurement uncertainties for KTL measurements

The following procedure is used when determining the result of a measurement :

- (i) If specification limits are not exceeded by the measured result, extended by the positive component of the expanded uncertainty interval at a confidence level of 95%, then a pass result is recorded.
- (ii) Where a specification limit is exceeded by the result even when the result is decreased by the negative component of the expanded uncertainty interval, a fail result is recorded.
- (iii) Where measured result is below a limit, but by a margin less than the positive measurement uncertainty component, it is not possible to record a pass based on a 95% confidence level. However, the result indicates that a pass result is more probable than a fail result.
- (iv) Where a measured result is above a limit, but by a margin less than the negative measurement uncertainty component, it is not possible to record a fail based on a 95% confidence level. However the result indicates that a fail is more probable than a pass.

## 2.2 KTL Measurement Uncertainty Values

For the test data recorded in accordance with note (iii) of Section 2.2 the following measurement uncertainty was calculated:

Test type	Quantity	Quantity frequency range	Expanded uncertainty
Radiated electric field emissions 3m alternative test site	Amplitude	30MHz to 300MHz Horizontal	±4.6dB
		30MHz to 300MHz Vertical	±5.1dB
		300MHz to 1000MHz Horizontal	±5.2dB
		300MHz to 1000MHz Vertical	±5.5dB
		1GHz to 18GHz Horizontal and Vertical	±4.1dB

**Section 3:**

**Modifications**

**3.1 Modifications Performed During Assessment**

No modifications were performed during the assessment

**Appendix A:**

**Formal Emission Test Results**

Abbreviations used in the tables in this appendix:

Spec : Specification  
 Mod : Modification

EUT : Equipment Under Test  
 SE : Support Equipment

L : Live Power Line  
 N : Neutral Power Line  
 E : Earth Power Line

Pk : Peak Detector  
 QP : Quasi-Peak Detector  
 Av : Average Detector

ALSR : Absorber Lined Screened Room  
 OATS : Open Area Test Site  
 ATS : Alternative Test Site

Ref : Reference  
 Freq : Frequency

MD : Measurement Distance  
 SD : Spec Distance

Pol : Polarisation  
 H : Horizontal Polarisation  
 V : Vertical Polarisation

CDN : Coupling & decoupling network

## A1 Observed Radiated Carrier Frequency

The object of the exercise is to determine if Globalstar was operating on frequencies above 1618.725 MHz. The observed radiated carrier frequency was verified using a Horn antenna (vertically polarised) positioned 1 meter away from the EUT (S01) Using the Globalstar web-based tool, the “optimum” times of service were determined at a given geographical location (Hull).

[http://www.globalstareurope.com/en/optimum\\_tool/](http://www.globalstareurope.com/en/optimum_tool/)

Calls were made approximately every hour or when satellite coverage was available. The transmit frequency assigned to the handset and time at which the call was made was recorded. Where possible plots were taken of the observed radiated carrier frequency

Once the transmit frequency (channel) had been observed and recorded, the call was terminated.

Call No.	Time	Frequency (MHz)	PLOT NAME
1	10:24	1620.925	N/A
2	10:26	1618.175	N/A
3	10:33	1618.1005	SCREN241.GIF
4	10:35	1620.551	SCREN242.GIF
5	10:37	1620.551	SCREN243.GIF
6	10:41	1618.1375	SCREN244.GIF
7	10:58	1620.625	SCREN245.GIF
8	11:00	1620.575	SCREN246.GIF
9	12:30	1620.575	SCREN247.GIF
10	12:35	1620.575	SCREN248.GIF
11	12:40	1620.575	SCREN249.GIF
12	12:45	1620.5625	SCREN250.GIF
13	12:50	1618.100	SCREN251.GIF
14	13:55	1620.5875	SCREN252.GIF
15	13:57	1618.1375	SCREN253.GIF
16	14:00	1620.6125	SCREN254.GIF
17	14:34	1618.1375	SCREN255.GIF
18	14:36	1618.1375	SCREN256.GIF
19	14:40	1618.1375	SCREN257.GIF
20	14:43	1618.1375	SCREN258.GIF
21	14:45	1620.5625	SCREN260.GIF
22	15:58	1618.1500	SCREN261.GIF
23	16:00	1618.1125	SCREN262.GIF
24	16:25	1620.525	SCREN263.GIF
25	16:27	1620.5875	SCREN264.GIF
26	16:28	1618.875	SCREN265.GIF
27	16:32	1620.5875	SCREN266.GIF

Please refer to Appendix B for associated graphical data.

**Appendix B:**

**Supporting Graphical Data**

This appendix contains graphical data obtained during testing.

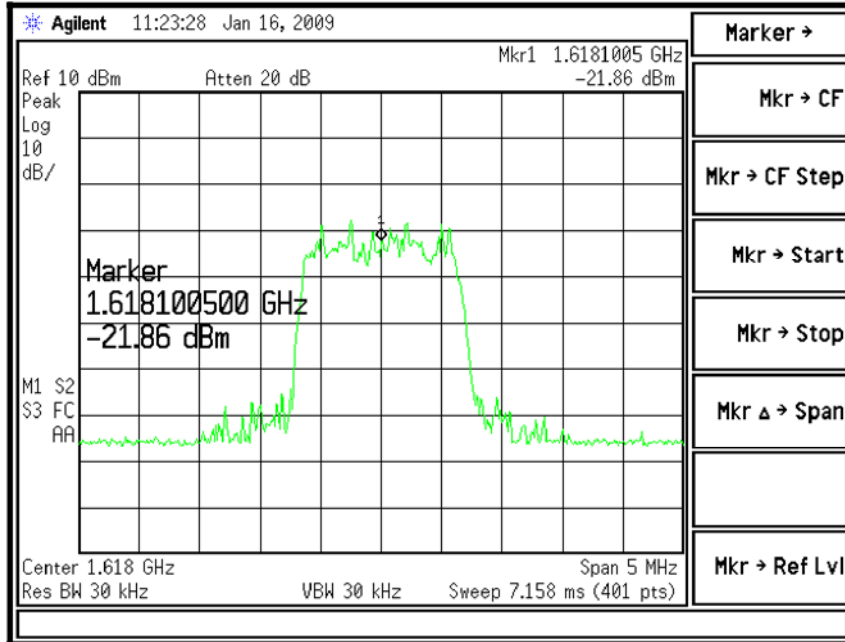
Notes:

- (a) The Observed Radiated Carrier Frequency graphical data in this appendix is preview data showing peak hold scan results.
- (b) The time and date on the plots do not necessarily equate to the time of the test.

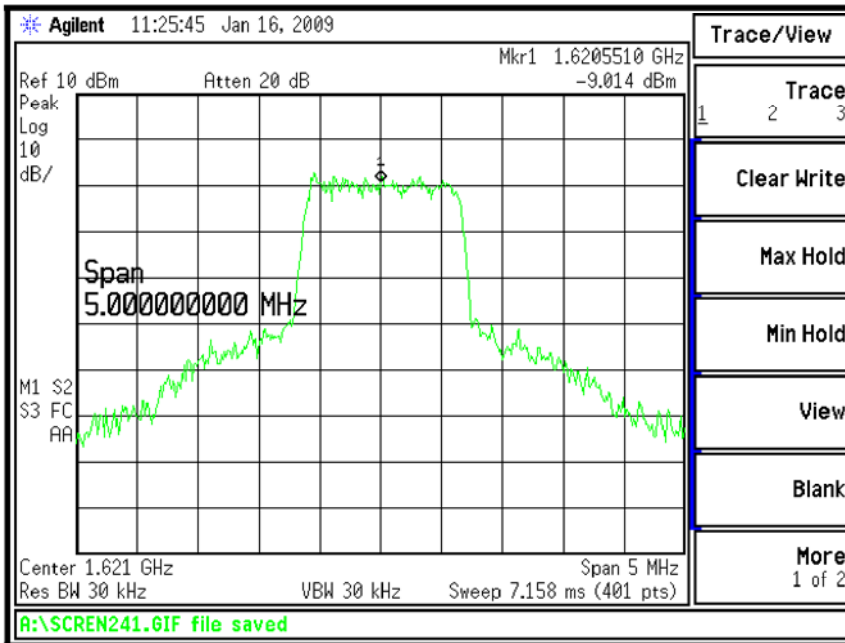


Call No.	Time	Frequency (MHz)	File name
1	10:24	1620.925	N/A
2	10:26	1618.175	N/A

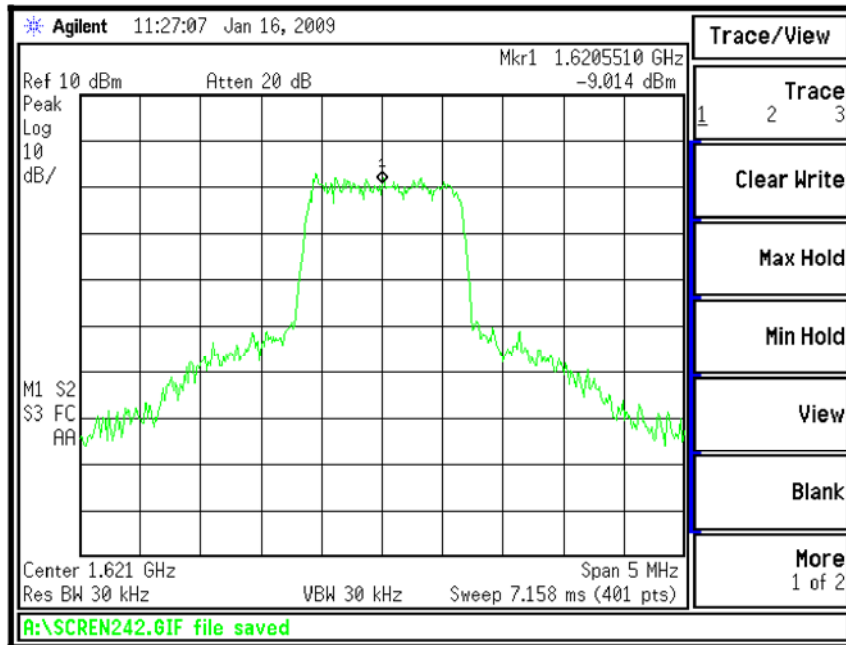
For Call No. 1 and No. 2 no graphical data is present within this test report.



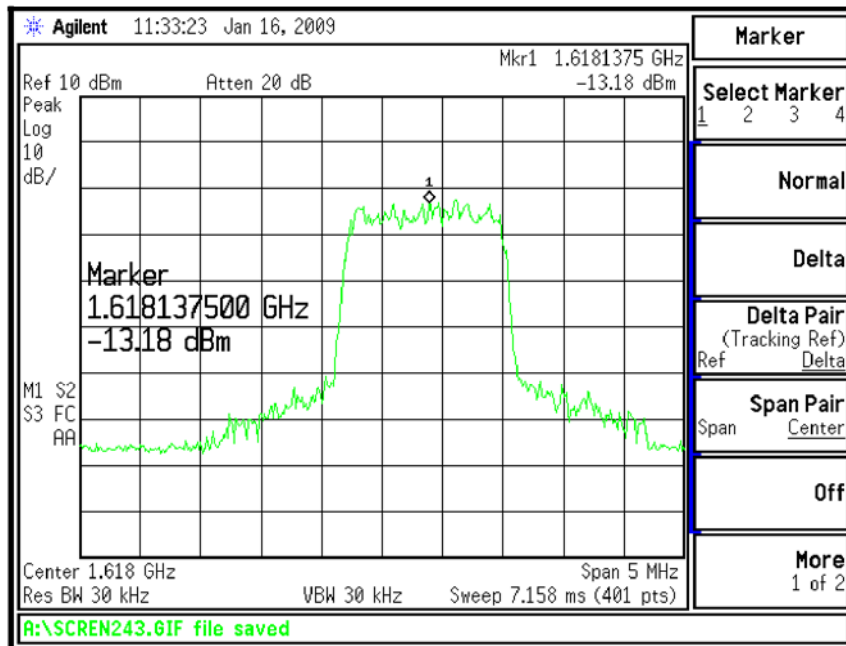
Call No.	Time	Frequency (MHz)	File name
3	10:33	1618.1005	SCREN241.GIF



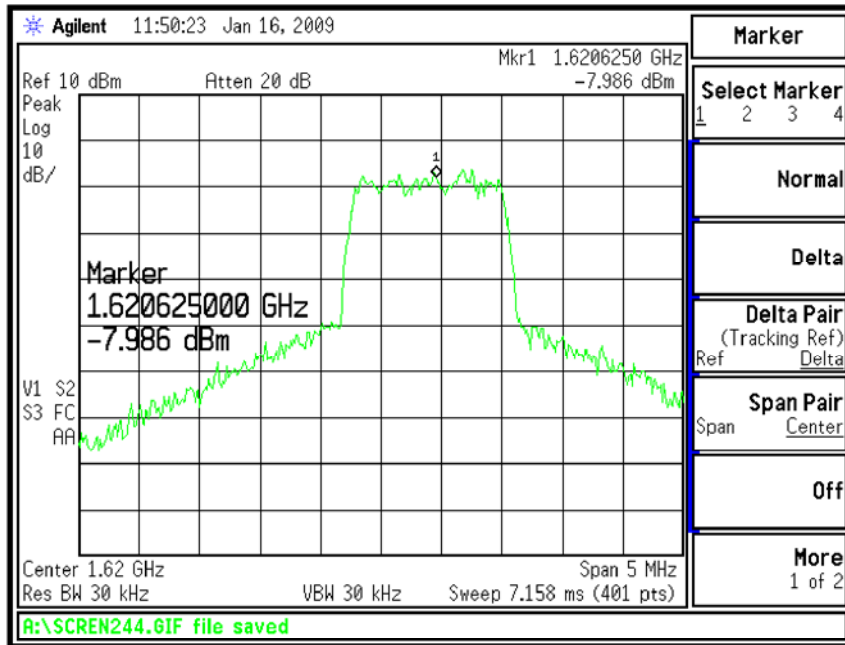
Call No.	Time	Frequency (MHz)	File name
4	10:35	1620.551	SCREN242.GIF



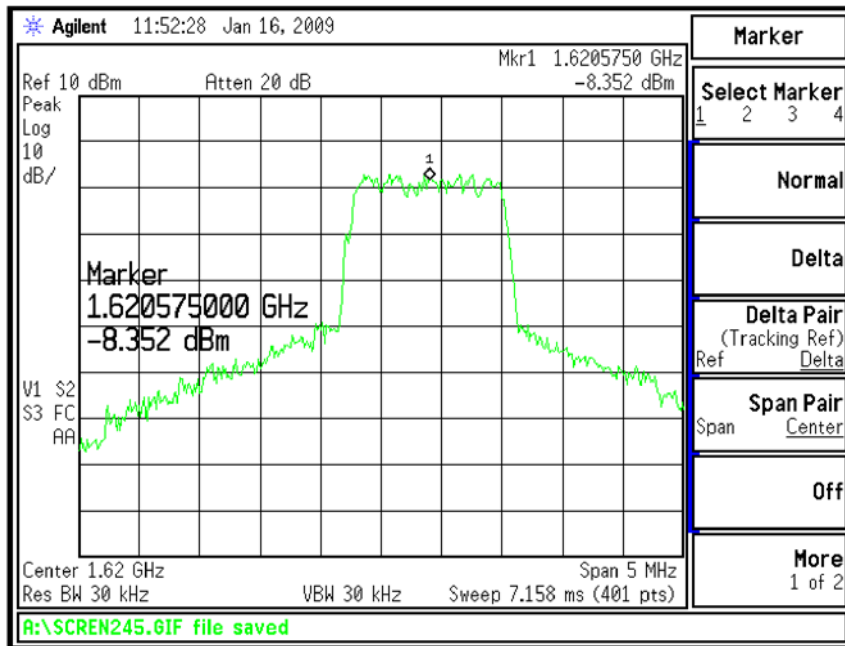
Call No.	Time	Frequency (MHz)	File name
5	10:37	1620.551	SCREN243.GIF



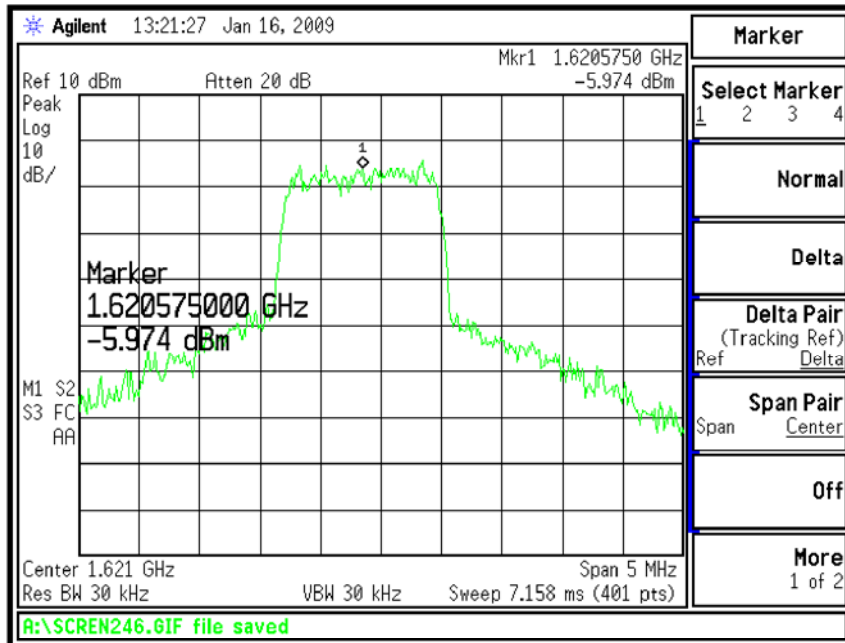
Call No.	Time	Frequency (MHz)	File name
6	10:41	1618.1375	SCREN244.GIF



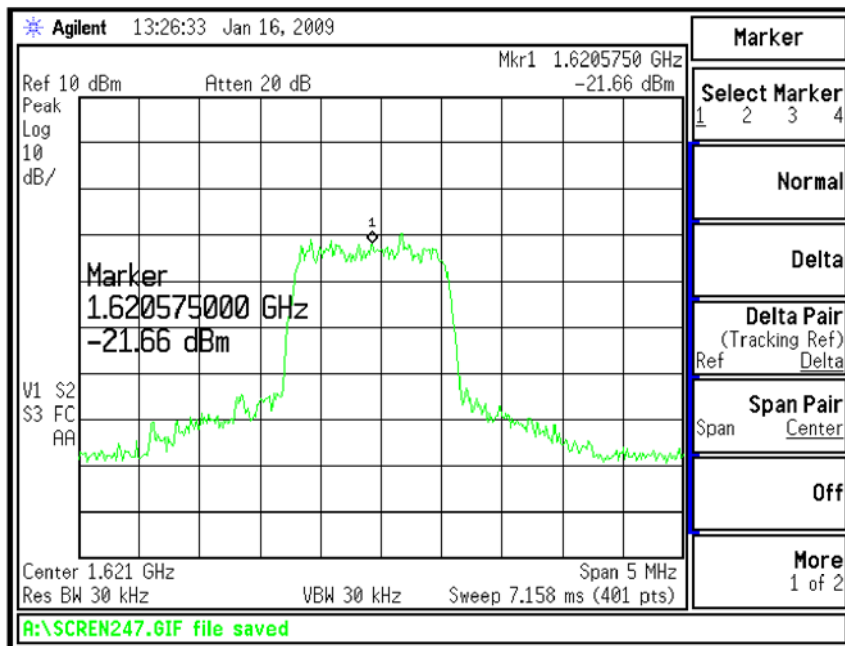
Call No.	Time	Frequency (MHz)	File name
7	10:58	1620.625	SCREEN245.GIF



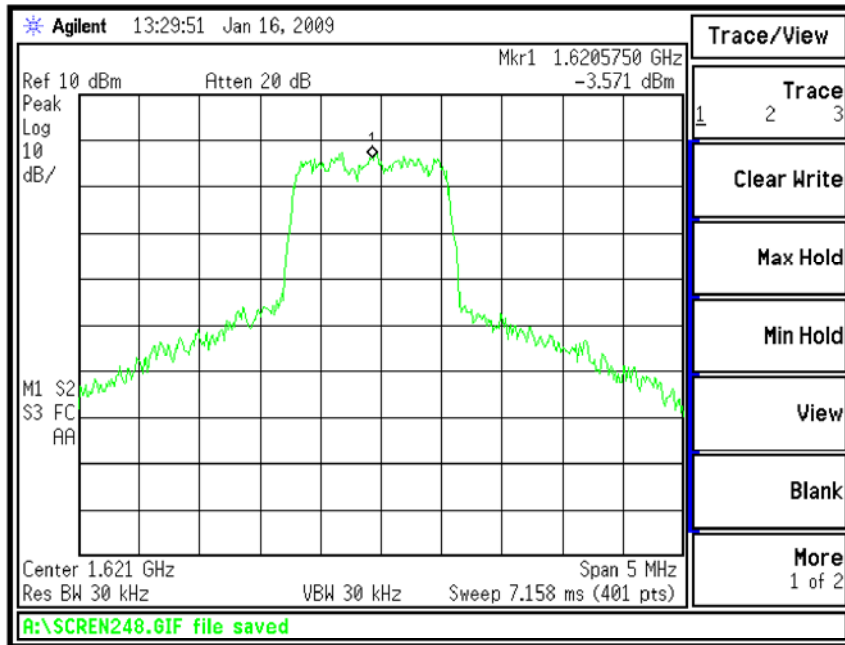
Call No.	Time	Frequency (MHz)	File name
8	11:00	1620.575	SCREEN246.GIF



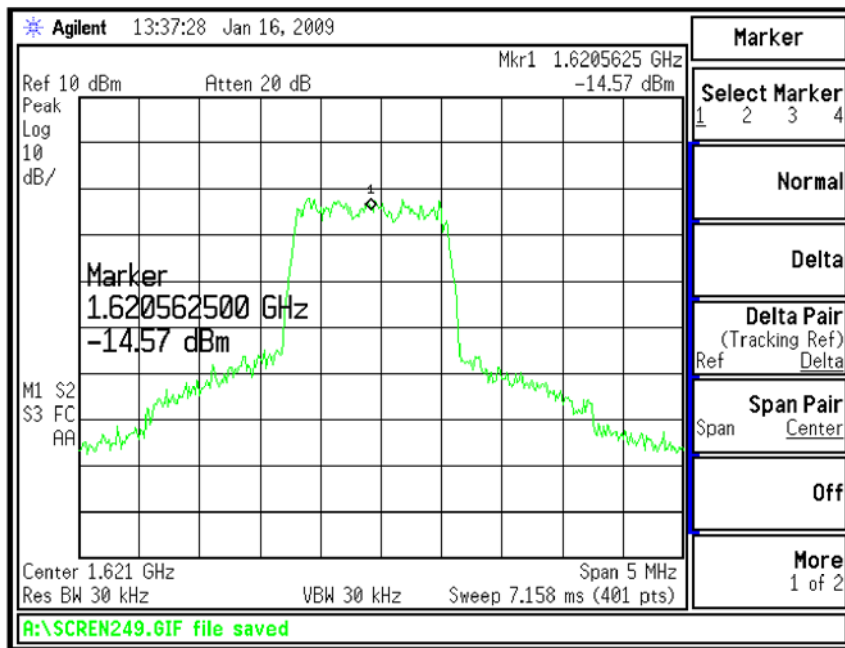
Call No.	Time	Frequency (MHz)	File name
9	12:30	1620.575	SCREEN247.GIF



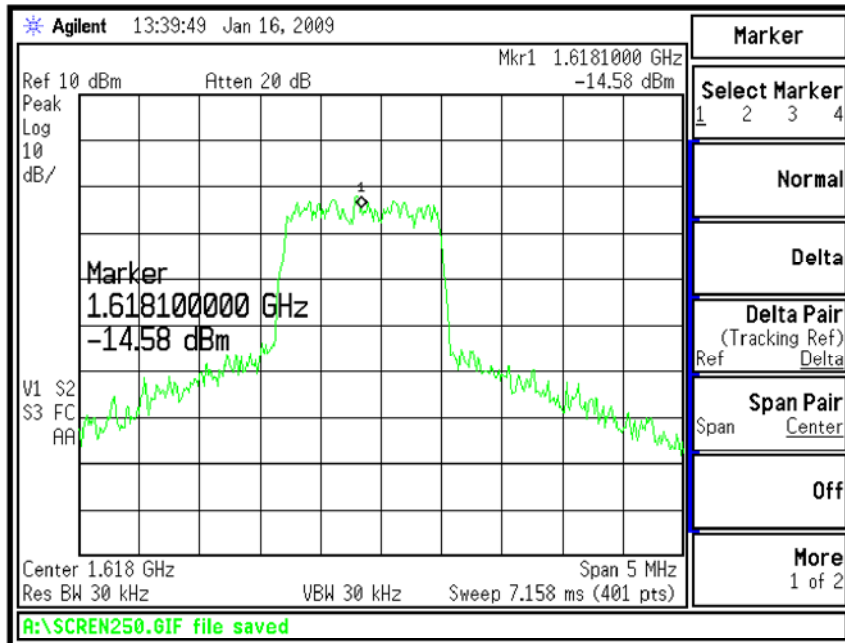
Call No.	Time	Frequency (MHz)	File name
10	12:35	1620.575	SCREEN248.GIF



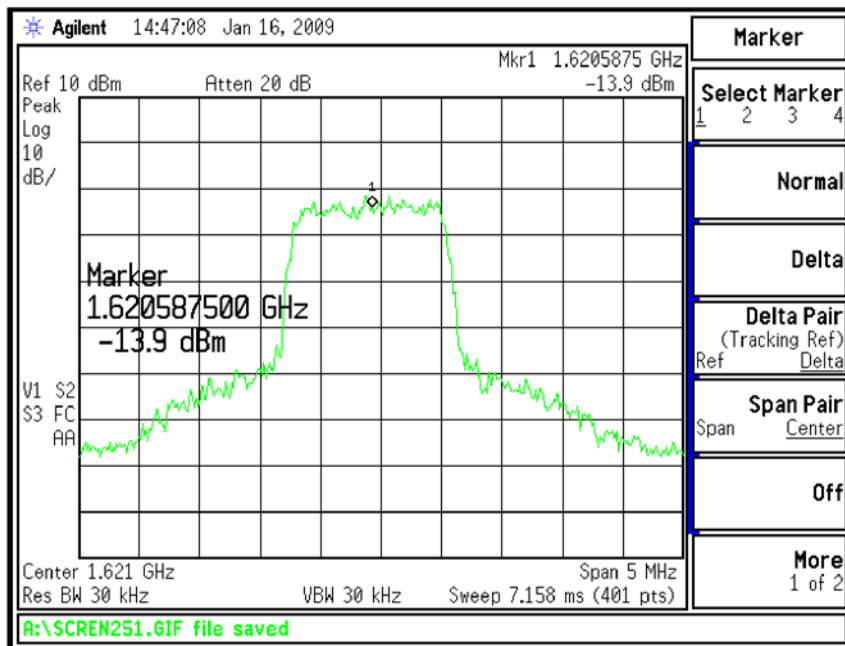
Call No.	Time	Frequency (MHz)	File name
11	12:40	1620.575	SCREN249.GIF



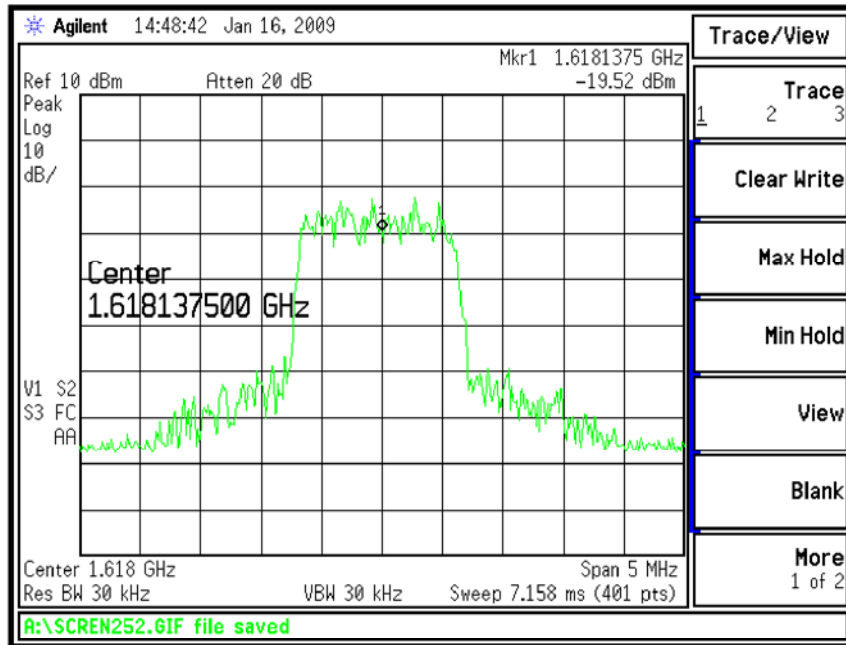
Call No.	Time	Frequency (MHz)	File name
12	12:45	1620.5625	SCREN250.GIF



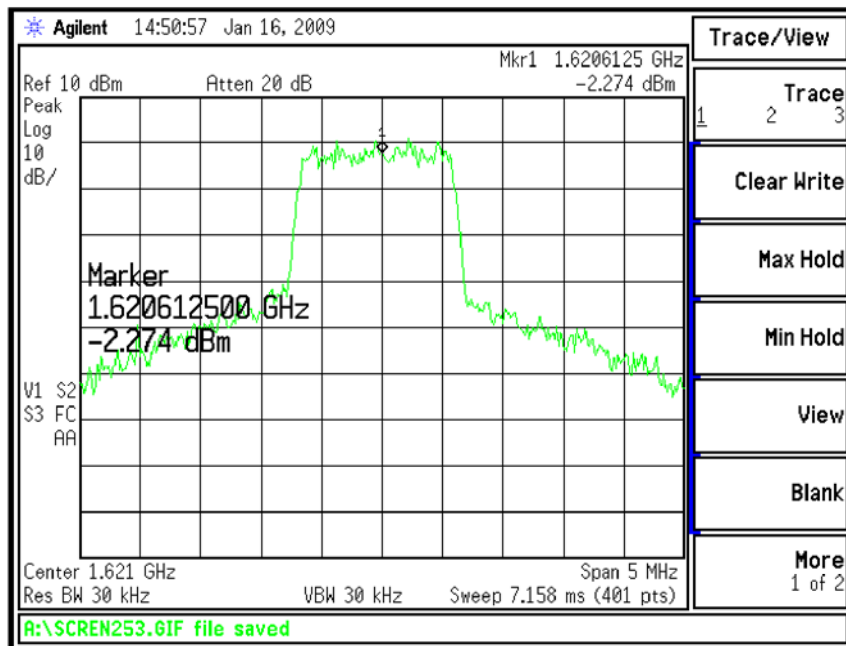
Call No.	Time	Frequency (MHz)	File name
13	12:50	1618.100	SCREEN251.GIF



Call No.	Time	Frequency (MHz)	File name
14	13:55	1620.5875	SCREEN252.GIF

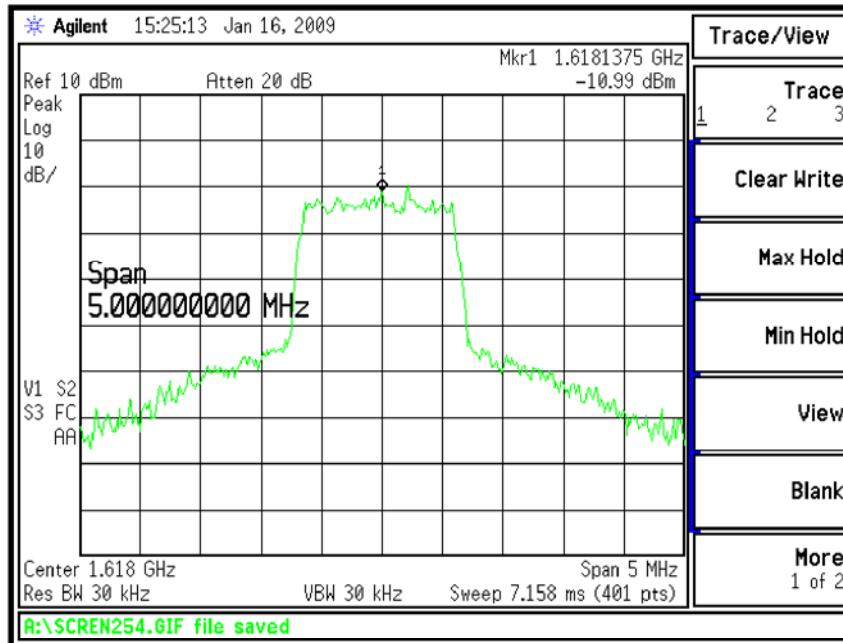


Call No.	Time	Frequency (MHz)	File name
15	13:57	1618.1375	SCREEN253.GIF

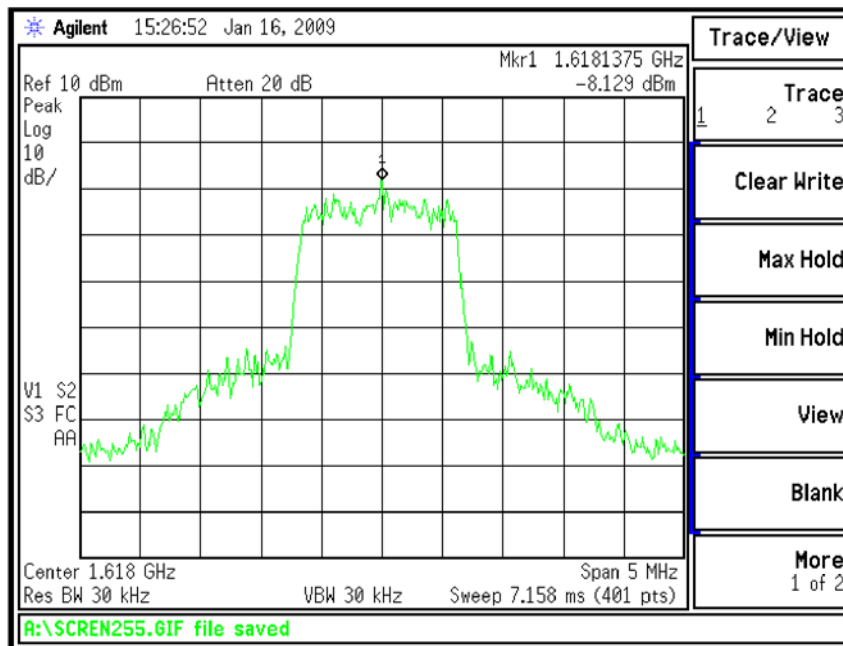


Call No.	Time	Frequency (MHz)	File name
16	14:00	1620.6125	SCREEN254.GIF

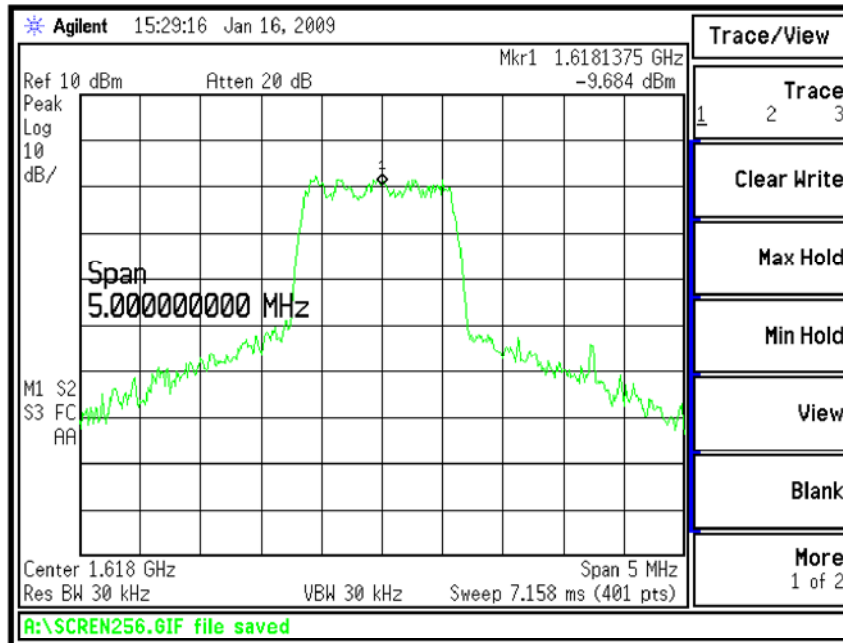




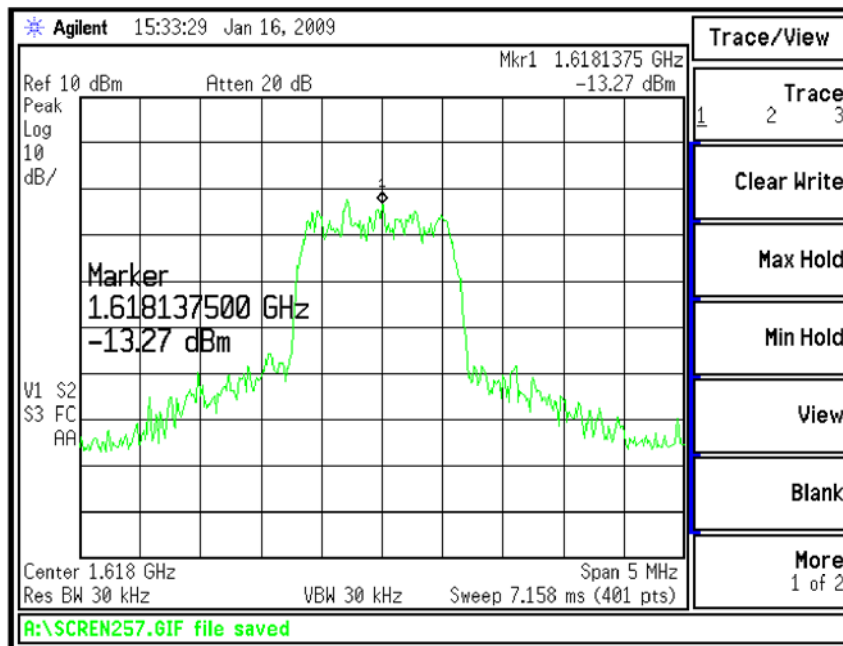
Call No.	Time	Frequency (MHz)	File name
17	14:34	1618.1375	SCREEN255.GIF



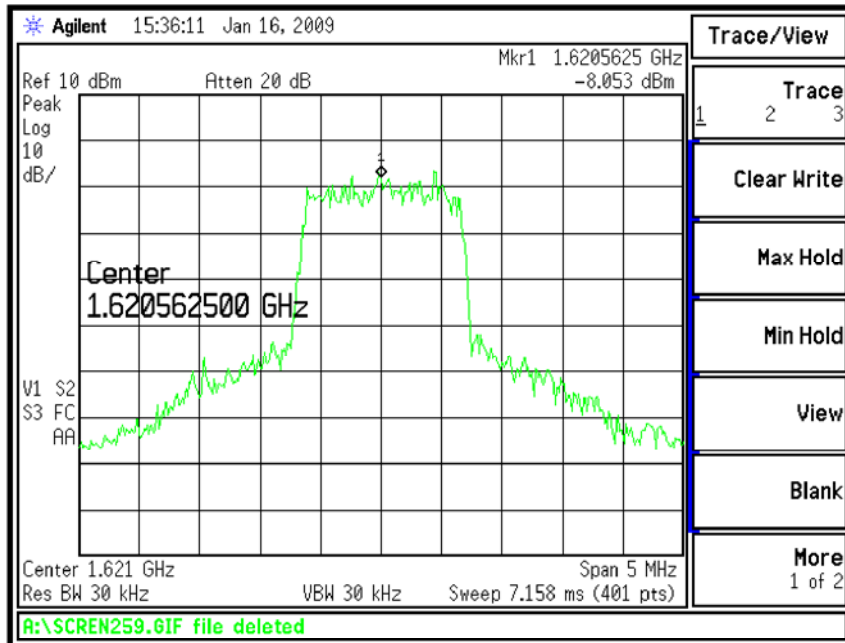
Call No.	Time	Frequency (MHz)	File name
18	14:36	1618.1375	SCREEN256.GIF



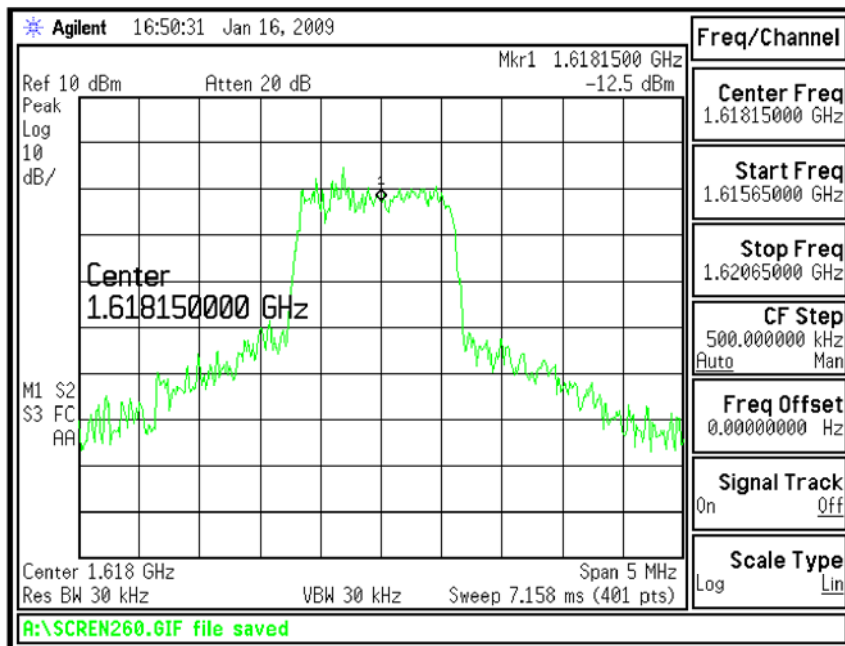
Call No.	Time	Frequency (MHz)	File name
19	14:40	1618.1375	SCREEN257.GIF



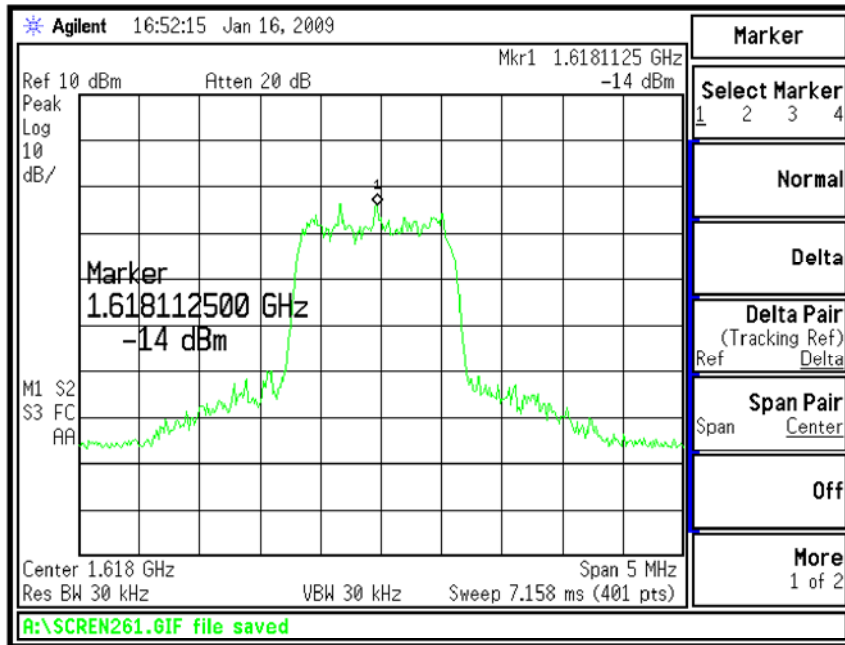
Call No.	Time	Frequency (MHz)	File name
20	14:43	1618.1375	SCREEN258.GIF



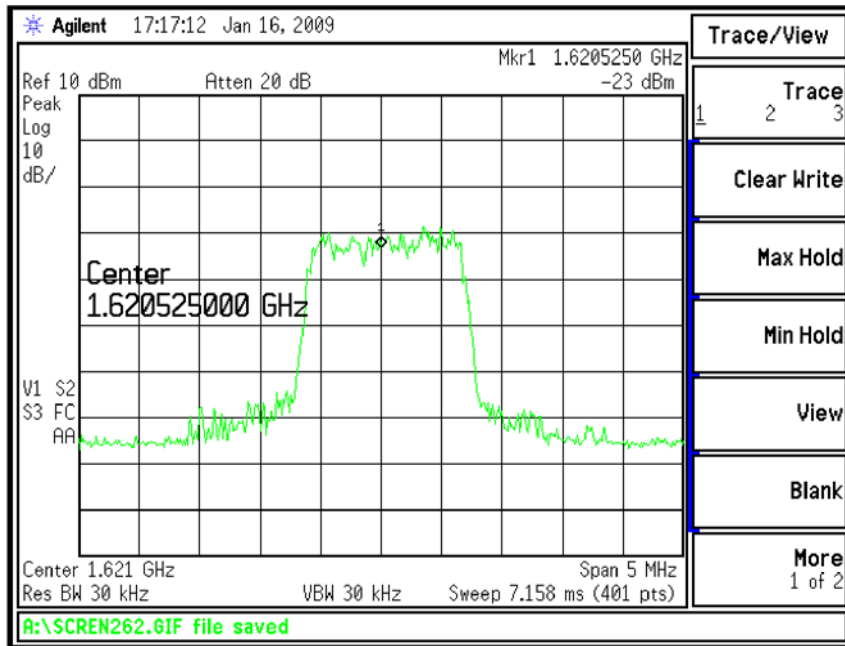
Call No.	Time	Frequency (MHz)	File name
21	14:45	1620.5625	SCREN260.GIF



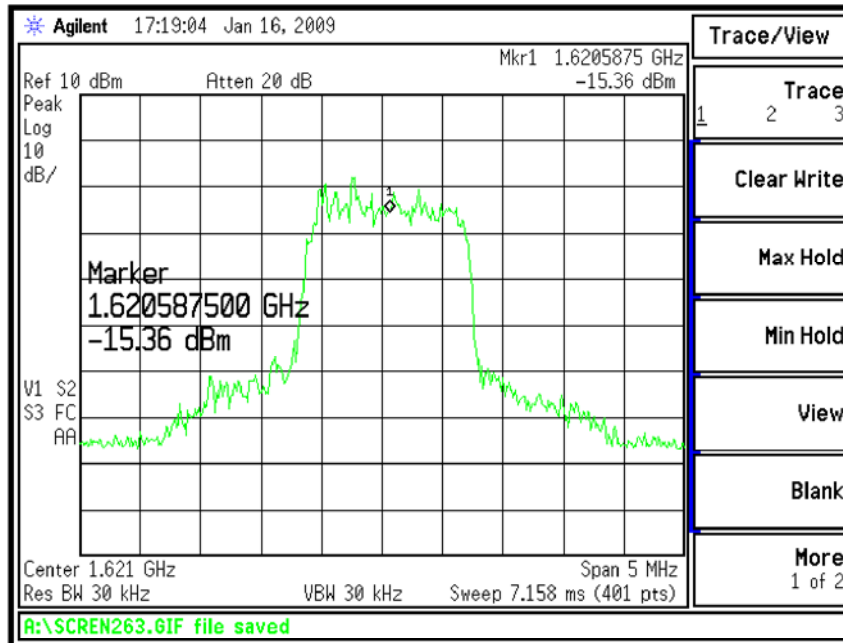
Call No.	Time	Frequency (MHz)	File name
22	15:58	1618.1500	SCREN261.GIF



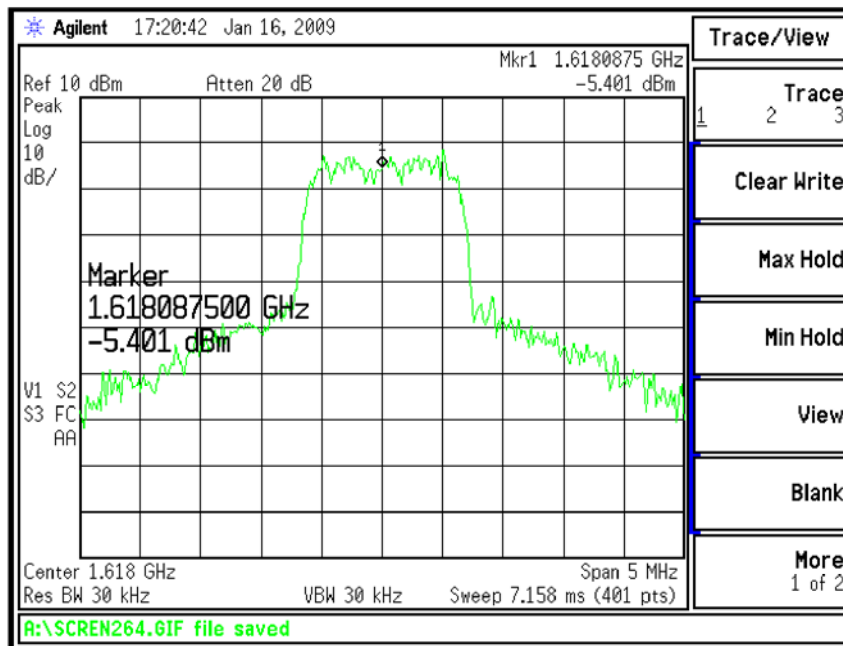
Call No.	Time	Frequency (MHz)	File name
23	16:00	1618.1125	SCREEN262.GIF



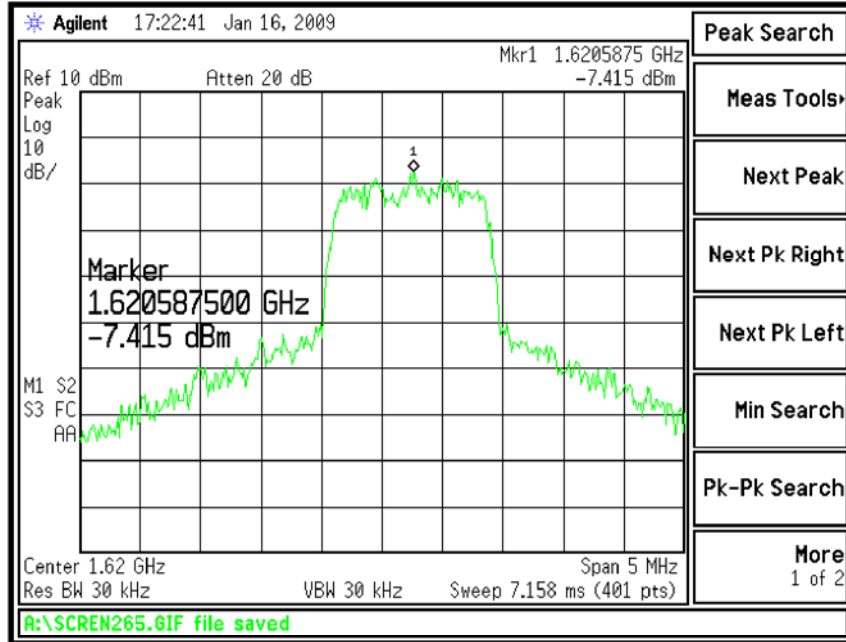
Call No.	Time	Frequency (MHz)	File name
24	16:25	1620.525	SCREEN263.GIF



Call No.	Time	Frequency (MHz)	File name
25	16:27	1620.5875	SCREEN264.GIF



Call No.	Time	Frequency (MHz)	File name
26	16:28	1618.875	SCREEN265.GIF



Call No.	Time	Frequency (MHz)	File name
27	16:32	1620.5875	SCREEN266.GIF

**Appendix C:****Additional Test and Sample Details**

This appendix contains details of:

1. The samples submitted for testing.
2. Details of EUT operating mode(s)
3. Details of EUT configuration(s) (see below).
4. EUT arrangement (see below).

Throughout testing, the following numbering system is used to identify the sample and it's modification state:

**Sample No:** Sxx Mod w

where:

xx	= sample number	eg. S01
w	= modification number	eg. Mod 2

The following terminology is used throughout the test report:

**Support Equipment (SE)** is any additional equipment required to exercise the EUT in the applicable operating mode. Where relevant SE is divided into two categories:

SE in test environment: The SE is positioned in the test environment and is not isolated from the EUT (e.g. on the table top during REFE testing).

SE isolated from the EUT: The SE is isolated via filtering from the EUT. (e.g. equipment placed externally to the ALSR during REFE testing).

**EUT configuration** refers to the internal set-up of the EUT. It may include for example:

- Positioning of cards in a chassis.
- Setting of any internal switches.
- Circuit board jumper settings.
- Alternative internal power supplies.

Where no change in EUT configuration is **possible**, the configuration is described as "single possible configuration".

**EUT arrangement** refers to the termination of EUT ports / connection of support equipment, and where relevant, the relative positioning of samples (EUT and SE) in the test environment.

**C1) Test samples**

The following samples of the apparatus were submitted by the client for testing :

Sample No.	Description	Identification
S01	Qualcomm Handheld Satellite telephone GSP-1700 10-C6402-1	S/N: N10D73XT9
S02	Qualcomm Lithium-Ion Battery 3.7V, 2.6Ah CV90-R6155-1 GSP-1700BATT	17-A47465



**C2) EUT Operating Mode During Testing.**

Test	Description of Operating Mode:																												
Observed Radiated Carrier Frequency	<p data-bbox="537 323 727 352"><b>Channelization:</b></p> <p data-bbox="537 380 1344 438">Channels are approximately 1.23 MHz wide (CDMA carriers), with centre frequencies as follows:</p> <table border="1" data-bbox="537 464 781 1098"> <thead> <tr> <th data-bbox="542 470 662 579">Channel number</th> <th data-bbox="662 470 776 579">Centre freq (MHz)</th> </tr> </thead> <tbody> <tr><td data-bbox="542 579 662 619">1</td><td data-bbox="662 579 776 619">1610.73</td></tr> <tr><td data-bbox="542 619 662 659">2</td><td data-bbox="662 619 776 659">1611.96</td></tr> <tr><td data-bbox="542 659 662 699">3</td><td data-bbox="662 659 776 699">1613.19</td></tr> <tr><td data-bbox="542 699 662 739">4</td><td data-bbox="662 699 776 739">1614.42</td></tr> <tr><td data-bbox="542 739 662 779">5</td><td data-bbox="662 739 776 779">1615.65</td></tr> <tr><td data-bbox="542 779 662 819">6</td><td data-bbox="662 779 776 819">1616.88</td></tr> <tr><td data-bbox="542 819 662 858">7</td><td data-bbox="662 819 776 858">1618.11</td></tr> <tr><td data-bbox="542 858 662 898">8</td><td data-bbox="662 858 776 898">1619.34</td></tr> <tr><td data-bbox="542 898 662 938">9</td><td data-bbox="662 898 776 938">1620.57</td></tr> <tr><td data-bbox="542 938 662 978">10</td><td data-bbox="662 938 776 978">1621.8</td></tr> <tr><td data-bbox="542 978 662 1018">11</td><td data-bbox="662 978 776 1018">1623.03</td></tr> <tr><td data-bbox="542 1018 662 1058">12</td><td data-bbox="662 1018 776 1058">1624.26</td></tr> <tr><td data-bbox="542 1058 662 1098">13</td><td data-bbox="662 1058 776 1098">1625.49</td></tr> </tbody> </table> <p data-bbox="537 1129 1365 1215">The object of the exercise was to determine if the Globalstar network was operating on frequencies above 1618.725 MHz, corresponding to channels greater than 8 or 9.</p>	Channel number	Centre freq (MHz)	1	1610.73	2	1611.96	3	1613.19	4	1614.42	5	1615.65	6	1616.88	7	1618.11	8	1619.34	9	1620.57	10	1621.8	11	1623.03	12	1624.26	13	1625.49
	Channel number	Centre freq (MHz)																											
	1	1610.73																											
	2	1611.96																											
	3	1613.19																											
	4	1614.42																											
	5	1615.65																											
	6	1616.88																											
	7	1618.11																											
	8	1619.34																											
	9	1620.57																											
	10	1621.8																											
	11	1623.03																											
	12	1624.26																											
13	1625.49																												

**C3) EUT Configuration Information.**

The EUT was submitted for testing in one single possible configuration.

**C4) List of EUT Ports**

The table below describes the termination of EUT ports:

Sample : S01  
Tests : All

Port	Description of Cable Attached	Cable length	Equipment Connected
dc Adaptor interface	None	N/A	None

The EUT was a battery-operated device with no external ports.

**C5 Details of Equipment Used**

For Radiated Electric Field Emissions 1GHz to 18GHz

RFG No	Type	Description	Manufacturer	Date Calibrated
831	219-8004-5000 0608	K Male to K male 50Ohm coax	Teledyne Reynolds	03/08/2008
129	3115	Horn Antennas	EMCO	29/07/98
404	E4407B	Spectrum Analyser	Agilent	07/04/08

**Appendix D:**

**Additional Information**

No additional information is included within this test report.

**Appendix E:**

**Photographs and Figures**

The following photographs were taken of the test samples:

1. EUT (S01) Front view
2. EUT (S01) Rear view



Photograph 1



Photograph 2



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**AFFIDAVIT OF Martin Leach**

1. I, Martin Leach, am Senior Engineer for TRaC Telecoms & Radio Ltd. in the United Kingdom.
2. I conducted tests in the United Kingdom on January 16, 2009 to determine if the Globalstar network was operating on frequencies above 1618.725 MHz corresponding to channels greater than 8 or 9.
3. The attached TRaC Telecoms & Radio report, number 8F1909WPR1, accurately summarizes the test methodology and findings.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on January 21, 2009

A handwritten signature in cursive script that reads "M. E. Leach".

---

Martin Leach  
Senior Engineer  
TRaC Telecoms & Radio Ltd.