



PUBLIC NOTICE

Federal Communications Commission
445 12th St., S.W.
Washington, D.C. 20554

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DA 17-1210

Released: December 18, 2017

WIRELESS TELECOMMUNICATIONS BUREAU SEEKS COMMENT ON IDS GEORADAR REQUEST FOR WAIVER TO ALLOW LICENSING AND USE OF ITS 76-77 GHZ BAND RADAR IN MINES AND TUNNELS

WT Docket No. 17-358

Comment Date: January 17, 2018

Reply Date: February 1, 2018

By this *Public Notice*, we seek comment on a request for waiver filed by IDS GeoRadar (IDS) to permit certification and use of its 76-77 GHz band Hyper Definition Radar (HYDRA) system in mines and tunnels to detect potential collapses, landslides, and rockfalls.¹

HYDRA is a remote sensing mechanism that uses radiolocation to monitor rock and soil surface deformations. The lower power version (28 dBm effective isotropic radiated power (EIRP)) is used for monitoring at close ranges (up to 200 meters) in underground mines and tunnels; while the higher power version (45 dBm EIRP) is used for monitoring open pit mines, with a range up to 800 meters. IDS states that the HYDRA achieves higher accuracy and spatial resolution than current technologies,² and the use of the 76-77 GHz band results in a smaller antenna that can be moved more easily to where it is needed as mining or construction progresses.

The 76-77 GHz band is allocated for radiolocation use, but is not available to the part 90 Radiolocation Service.³ Instead, the Commission designated the band for licensed-by-rule operation under part 95, but only for vehicular radar, and fixed and mobile radar at airports.⁴ It declined to permit additional types of fixed radar in the band in order to avoid interference to vehicular radar.⁵

¹ See Request by IDS GeoRadar for Waiver of Section 90.103(b) of the Commission's Rules (filed Nov. 15, 2017).

² Specifically, IDS states that the HYDRA produces an accuracy better than 0.1 mm (compared to 1 mm) and a spatial resolution of 15 cm (compared to 75 cm).

³ See 47 CFR §§ 2.106, 90.103(b).

⁴ See 47 CFR § 95.3331.

⁵ See *Amendment of Parts 1, 2, 15, 90 and 95 of the Commission's Rules to Permit Radar Services in the 76-81 GHz Band*, Report and Order, 32 FCC Rcd 8822, 8845, para. 40 (2017). The Commission "acknowledge[d] that, under careful coordination, it might nevertheless be possible for fixed radars to operate in the band at carefully selected locations without causing harmful interference to vehicular radars," but concluded that the rulemaking record presented insufficient information to develop a successful coordination process. *Id.*

IDS requests waiver of section 90.103(b) of the Commission's rules to permit equipment approval and site-by-site licensing of its HYDRA radar system for use in underground mine monitoring, tunnel construction, and open pit mining operations. It states that the emitted signal will be confined within the mines and tunnels, and therefore will not cause interference to vehicular radar or other services operating in the 76-77 GHz band.⁶ IDS argues that grant of a waiver is in the public interest because use of the HYDRA will improve safety in mines and tunnels.

We seek comment on the waiver request.

Procedural Matters

Interested parties may file comments and reply comments in response to the waiver request on or before the dates listed on the first page of this *Public Notice*. All pleadings must reference the docket number appearing on the first page of this *Public Notice*. Parties may file comments using (1) the Commission's Electronic Comment Filing System (ECFS), (2) the Federal Government's eRulemaking Portal, or (3) by filing paper copies.⁷

- **Electronic Filers:** File comments electronically using the Internet by accessing the ECFS: <http://www.fcc.gov/cgb/ecfs/> or the Federal eRulemaking Portal: <http://www.regulations.gov>. Filers should follow the instructions provided on the website for submitting comments.
- In completing the transmittal screen, filers should include their full name, U.S. Postal Service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions, filers should send an e-mail to ecfs@fcc.gov, and include the following words in the body of the message, "get form." A sample form and directions will be sent in response.
- **Paper Filers:** Parties who choose to file by paper must file an original and one copy of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

Send filings by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. Address filings to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

- Deliver hand-delivered or messenger-delivered paper filings to FCC Headquarters at 445 12th St., SW, Room TW-A325, Washington, DC 20554 between 8:00 AM and 7:00 PM. Use rubber bands or fasteners to hold deliveries together. Dispose of all envelopes before entering the building.
- Send commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) to 9050 Junction Drive, Annapolis Junction, MD 20701.
- Send U.S. Postal Service first-class, Express, and Priority mail to 445 12th Street, SW, Washington DC 20554.

The request, and comments and reply comments filed in response to this *Public Notice* are available for viewing via the Commission's Electronic Comment Filing System (ECFS) by entering the docket number appearing on the first page of this *Public Notice*. The documents also will be available for public inspection and copying during business hours in the FCC Reference Information Center, Portals II, 445 12th Street S.W., Room CY-A257, Washington, D.C. 20554. Reference Information Center business

⁶ In addition to vehicular radar and radar at airports, the 76-77 GHz band is allocated to the Federal and non-Federal Radio Astronomy service on a primary basis, and to the Amateur service and the Federal and non-Federal Space Research (space-to-earth) services on a secondary basis. See 47 CFR § 2.106.

⁷ See *Electronic Filing of Documents in Rulemaking Proceedings*, Report and Order, 13 FCC Rcd 11322 (1998).

hours are available at <https://www.fcc.gov/general/fcc-reference-information-center>.

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This proceeding has been designated as a “permit-but-disclose” proceeding in accordance with the Commission's *ex parte* rules.⁸ Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (*e.g.*, .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.

For further information, contact Mr. Rodney Conway of the Wireless Telecommunications Bureau, Mobility Division, at (202) 418-2904, rodney.conway@fcc.gov.

Action by the Deputy Chief, Mobility Division, Wireless Telecommunications Bureau.

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⁸ See 47 CFR §§ 1.1200(a), 1.1206.