

## Handheld Direction Finding Seminar

# Signal localization and identification using the Handheld Direction Finder IDA 2

### Target group

New IDA users, professionals and communications engineers with a basic knowledge of signal analysis and interference measurement relating to electromagnetic signals; ideally, users will bring their own instruments with them to the seminar and will already be familiar with the basic functions of the instrument.

### Objective

Development and expansion of practical and theoretical knowledge of signal analysis and the localization of hitherto unknown signals. A truly practical seminar with all-round application oriented measurement exercises.

### Presentations in 2020

Seminar dates can be requested via [info.narda-de@L3Harris.com](mailto:info.narda-de@L3Harris.com)

(2 ½ day seminar)



### Course content

#### Day 1:

##### Fundamentals and exercises in signal analysis

Making settings in a sensible order, e.g. selecting the measurement frequency (Fcent and FSPAN), resolution bandwidth (RBW) and sensitivity. Characteristics and selection of direction finding antennas; preparation for measurement illustrated using practical interference mechanisms and their coupling paths; signal characteristics examined: noise-like, clocked, continuous wave (CW) and combinations of these. Polarizations and dominant reflections. Special features of conducted propagation searches.

#### Day 2:

##### Signal recognition and direction finding/ Practical exercises and demonstrations

Using software tools; SmartDF; manual bearing and horizontal scan, discrete triangulation when localizing signals that occur only briefly (push to talk). Detection of in-band interferers using the new High Resolution Spectrogram (HRS) function; analysis of the generated bearing diagrams; close search near the object (e.g. within a building). From the afternoon onwards practical exercises and demonstrations are planned (see description at Day 3 below).

#### Day 3:

##### Practical exercises and demonstrations

The participants choose from practical signals that will be traced using the IDA: Time signal transmitters, VHF in-band interference, Thuraya satellite service, private mobile radio (PMR) using taxi radio as an example, WLAN, DECT telephony, LTE, GSM, interference emission by cable TV, walkie-talkie traffic.

### Instructor

Dipl.-Ing. Gerhard Seifried, Ingenieurbüro Seifried – Telecommunications measurements, advice, planning; Mr. Seifried draws on more than 40 years of experience with the German Federal Network Agency.

### Course fee

€ 1.440,- (for 2 ½ days)

### General information:

The number of participants is strictly limited. The closing date for applications is 4 weeks prior to the starting date of the seminar. The course fee includes lunch, drinks and snacks and also includes the seminar documentation. When we have received and registered your application you will receive a brief confirmation of receipt by e-mail. We will then send you confirmation of registration and the invoice, together with information about the location of the seminar and a sketch of how to get there. We will give a 10% discount per person if there are three or more participants from the same company. You may cancel free of charge at any time up to 4 weeks before the seminar. After this time we will charge you 50% of the course fee. We are obliged to charge the full course fee for no shows or cancellations within three days prior to the seminar. Cancellations must be in writing. You may transfer your place to another person. The stated prices are exclusive of applicable taxes.

### Special information about the number of participants:

The number of participants is limited to 15. The best results will be achieved if you already have some practical experience in using the IDA and you bring your own IDA with you.

***These seminars can also be held individually at your location. Do not hesitate to ask us for details!***

***You will find the registration form on the next page. Please send the completed form to [info.narda-de@L3Harris.com](mailto:info.narda-de@L3Harris.com) or fax it to +49 7121 9732-790.***

## Application for IDA 2 seminar

Fax: +49 7121 9732-790

Tel.: +49 7121 9732-0

We will forward your registration to the sales partner responsible for your region. You will then receive the invoice from there. You are also welcome to register directly with your sales partner, which you can find here [www.narda-sts.com](http://www.narda-sts.com).

Seminar dates can be requested via [info.narda-de@L3Harris.com](mailto:info.narda-de@L3Harris.com)

Participant's Surname, Forename \_\_\_\_\_

Position / Department \_\_\_\_\_

Telephone / Fax \_\_\_\_\_

E-mail (for receipt confirmation) \_\_\_\_\_

Company name \_\_\_\_\_

Address / PO box \_\_\_\_\_

Postcode / City \_\_\_\_\_

Date / Signature \_\_\_\_\_

Send registration confirmation to  
(if not the same as the participant) \_\_\_\_\_

Invoice to  
(if not the same as the participant) \_\_\_\_\_

Own IDA available  Yes  No

Seminar language  German only  English only  English or German

I hereby permit my personal data to be used for the purpose of providing Narda and its Sales Partners with information, whereby my data will be compared against the international anti-terrorism list under EU law and subject to a Restricted Party Screening in the USA.

I hereby permit Narda Safety Test Solutions GmbH to regularly send me by email information about its product range (e.g. in the form of a Newsletter). I can withdraw this permission at any time.