



# Nouvelles Applications RadioAmateur pour RaspBerry Pi

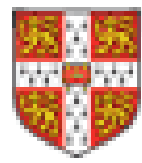
**Conférence ARP75**

**16 décembre 2014**

**Radio Club des Cheminots GRAC**



Bernard Pidoux, f6bvp



UNIVERSITY OF  
CAMBRIDGE

## Avant tout le RaspBerry Pi est un nano ordinateur mais il a tout d'un grand !

**Le système d'exploitation est Gnu LINUX dont les sources sont LIBRES !**

**Développé par l'Université de Cambridge pour que les jeunes puissent apprendre à maîtriser un ordinateur (programmer) avant d'entrer à l'université.**

**Enorme succès ! Plus de deux millions d'exemplaires vendus en deux ans.**

- La distribution Raspbian gère l'accélération matérielle du processeur graphique GPU
- La mise à jour du noyau et des logiciels est transparente (apt-get update, apt-get upgrade)
- Environnement de développement complet
- Plusieurs langages disponibles (C, Python, Perl,...)
- Compilateur GCC
- Environnement graphique ou ligne de commande
- Sources documentaires et didactiques innombrables via Internet.

# Invitation au voyage à travers ... le temps et ... l'espace

Autrefois un radioamateur trafiquait en téléphonie AM ou CW avec le matériel qu'il avait bricolé.

De nos jours il n'est plus possible de « bidouiller ». **FAUX !**

## POSTES ET TÉLÉCOMMUNICATIONS

## DIRECTION DES SERVICES RADIOÉLECTRIQUES

Téléph. DANton 84-20 et 72-20

5, RUE FROIDEVAUX, PARIS (14<sup>ème</sup>)

Adresse Télégraphique : TELFRA-PARIS

RÉFÉRENCE  
A RAPPELER

EPP-R3-0536

PARIS, le 23 FEV 1961

Monsieur PIDOUX Bernard  
96, rue Pierre Nemours

PARIS 17<sup>ème</sup>

Monsieur,

Comme suite à votre demande du 10 février 1961, j'ai l'honneur de vous faire connaître que l'autorisation d'établir une station réceptrice des émissions d'amateur ne peut être accordée qu'aux personnes âgées de seize ans au moins.

Dans ces conditions, vous devrez renouveler votre demande lorsque vous aurez l'âge réglementaire.

Veillez agréer, Monsieur, l'assurance de ma considération distinguée.

P. Directeur Général  
Directeur des Services Radioélectriques  
Le Directeur adjoint,

*Thierry*



# INTERNATIONAL SHORT WAVE LEAGUE

12, GLADWELL ROAD, LONDON, N.8.

**This is to Certify that**

*Mon. B. Pidoux.*

*ISWL/5U7-11727.*

**HAS BEEN ACCEPTED AS A MEMBER**

Date *1st February 1965:*

*Peter Byr*

GENERAL SECRETARY

R É P U B L I Q U E   F R A N Ç A I S E

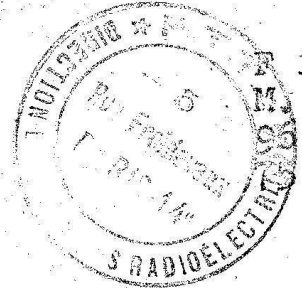
P O S T E S   E T   T É L É C O M M U N I C A T I O N S



D I R E C T I O N   D E S   S E R V I C E S   R A D I O É L E C T R I Q U E S

S E C T I O N   D E S   P O S T E S   P R I V É S

# L I C E N C E   D ' A M A T E U R



F 1 BJI  
M. PIDOUX BERNARD  
R PIERRE DEMCURS  
- PARIS 17e

est autorisé à établir et à utiliser une station radio-  
émettrice-réceptrice d'amateur dans les conditions générales prescrites  
par la réglementation en vigueur et dans les conditions particulières  
figurant au verso de la présente licence.

A PARIS, le 5 NOV. 1970

Pr l'Ingénieur Général,  
Directeur des Services Radioélectriques,  
Le Directeur Départemental,

J. NICOLAS

TRINIDAD AND TOBAGO  
9Y4NP

TO RADIO	DATE	GMT	MODE	TIME	CALL

7X0 GA GM X MIC  
HYUNS-ALGER  
ALGERIE



6W8AU  
BLANCHET Agathe  
BP 730  
BAKAR  
SENEGAL



XE1AAV  
MEXICO



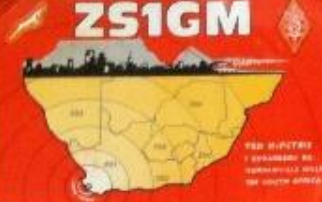
PORTUGAL  
CT10F



REPUBLIC OF RWANDA  
9X5JC



ZS1GM



HS1WR  
BANGKOK THAILAND



6AAAE  
RAWAKY Guy  
L'ANNOUËLE BEAUFORT



TR 8 RG  
RAWAKY Guy  
L'ANNOUËLE BEAUFORT



VATICAN CITY  
HV3SJ

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2024  
2025

DJ4LZ  
Nantes



PAPUA NEW GUINEA  
Zone 28  
P29JS



Wayne, New Jersey 07093, U.S.A.  
N2ZM



180 YEARS INDEPENDENCE OF BELGIUM  
OR7AZ



ITALIAN AMATEUR STATION  
14 WAU  
UGO ARTIOLI  
P. BOX 311  
VIA LADINOLA, 4 40132 CARRI (BOLOGNA) - ITALY

UMIA  
1972  
SM2BJQ



4U1ITU

EGYPT  
SU1ER  
AMATEUR RADIO STATION  
F6BVP  
MAYYAL DEL-DOKKI TO  
EZZAT S. RAMADAN  
145, EL-DOKKI  
CAIRO A.R. OF EGYPT

WA2HLP  
EAST HAMPTON, NY  
U.S.A.



KYOTO  
JA3AQ



9J2GJ



VP9GE  
REMBRANDT PARK



8P0A  
barbados

QUADELOUPE ISLAND - WEST INDIES  
FG7TD

TO RADIO	DATE	GMT	MODE	TIME	CALL

F6PYZ  
EX F13VK  
Thierry GICQUEL  
35 Rue Chanzy  
93000 SEINE SAINT DENIS  
FRANCE  
GARA LIAISON - BUREAU  
GARA LIAISON - BUREAU



VE8RCS  
ALERT, N.K.T.U. CANADA



CRETE ISLAND  
SV1JG/9  
F6BVP  
20-2-79 19-02 14 5/9 558  
CITY: SAPHIRO  
NO. 814 THE BEACH

USB On-line Log  
UB5068520  
Year 18 Reg. 000



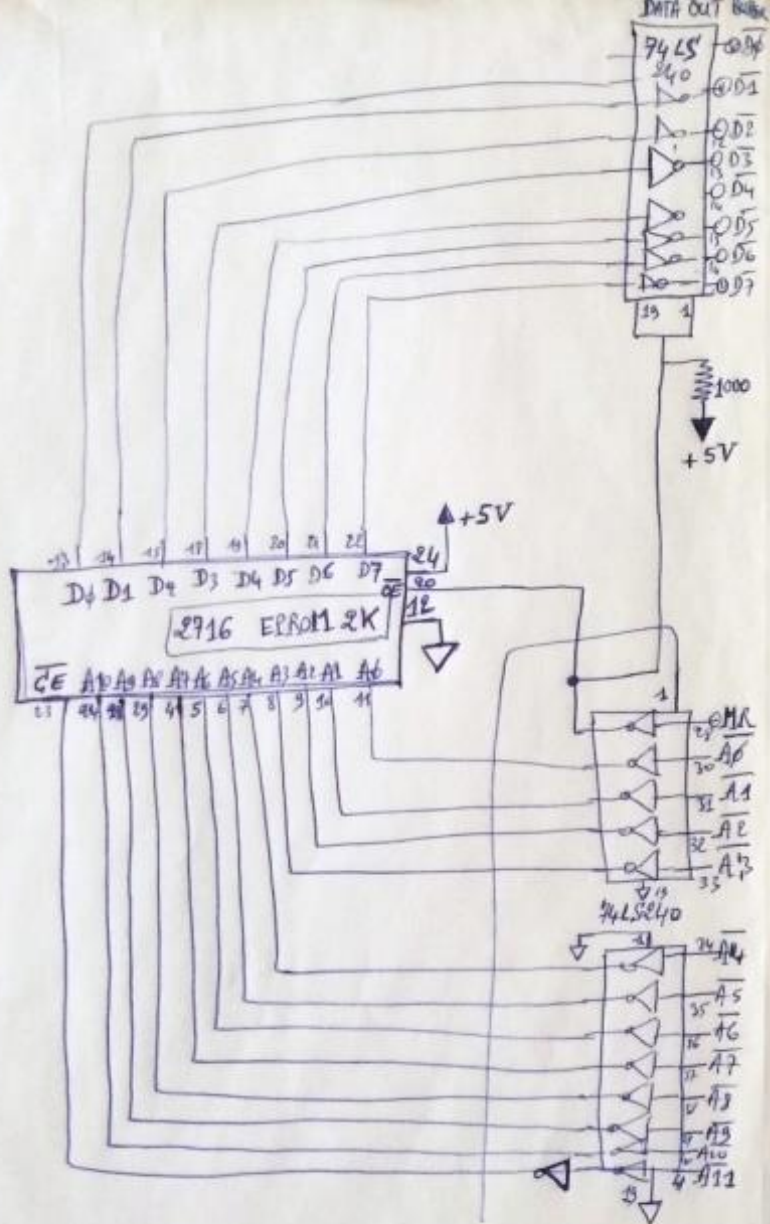
Guatemala  
TG4NX  
F6BVP 17 May 79 0759 17 57 358

## Apparition des premiers micro ordinateurs dans les années 1970

- Apple II
- TRS80
- Kit Heathkit H8 (processeur 8080 horloge 2MHz, 4 K mémoire dynamique, K7 stockage).
- Console H9 (construite en kit en 15 jours).
  
- **Et en même temps apparaissent les premières applications radioamateurs :**
  
- Logiciel de transmission et décodage du morse (en assembleur. « *It sounds like music !* »)
- Transmission RTTY à 45,45 – 50 et 75 bauds sur les bandes HF
- Paquet Radio AX.25 à 1200 bauds (carte répéteur cablée en wrapping – logiciel langage assembleur pour Intel 8080).







6 Inter lignes au pouce

FE 10840  
Bernard

Addr H8 - lignes adresse  
A9 - Aφ

2040

32064

00100000 | 01 000000

lit Puzanne → 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1  
001 | 00 000 | 01 000 000

- $2^0 = 1$
- $2^1 = 2$
- $2^2 = 4$
- $2^3 = 8$
- $2^4 = 16$
- $2^5 = 32$
- $2^6 = 64$
- $2^7 = 128$
- $2^8 = 256$
- $2^9 = 512$
- $2^{10} = 1024$
- $2^{11} = 2048$
- $2^{12} = 4096$
- $2^{13} = 8192$
- $2^{14} = 16384$
- $2^{15} = 32768$

1 K d'adressage possible

2 K d'adressage

64 K







docteur bernard pidoux

assistant à la faculté - paris vi  
attaché d'électroencéphalographie  
à l'hôpital sainte-anne

6, square claude debussy

75017 paris

924-72-50

INIT0 JMP INITOX  
INIT0.0 LXI H, PRSRAM + PRSL - 1 (HL =  
RAM destination  
for code  
initialize  
JMP IN IT

COPIE REPET RAM en RAM

000.073 INIT

LDA X D  
MOV H, A move byte  
DCX H decrements destination  
INR E increments source  
JNZ INET 'il faut continuer

004.000 SINCR

EQU 4000 A  
MVI D, SINCR / 256 (DE = search increment)  
LXI H, START - SINCR (HL = first RAM - search  
increment)

ORG 04 200A (8192)  
START DS 2 DUP starting address  
PRSRAM EQU \$ following cells initialized  
DS 1 from RAM

PRSL EQU \$ - PRSRAM

INITOX LXI D, PRSRAM (DE = RAM copy of  
PRSR code)  
JMP INIT0.0

## Dans les années 80 les micro satellites de l'Université du Surrey (orbites basses, passages en 10-20 minutes)

- Transpondeurs analogiques SSB, CW mode A : montée 10m, descente sur 145 MHz
- Télémessures à 1200 Bauds en FSK FM  
(Kansas City 1200-2400 Hz)
- Décodage avec le H8

**Dans les années 90 satellites défilants** avec descente sur 435 MHz en AFSK-FM 9600 bauds selon protocole **PACSAT**.

Logiciels de calculs des trajectoires des satellites, commande des antennes de poursuite, émission et réception des paquets sous **DOS**...







# AMSAT-UK

THE RADIO AMATEUR SATELLITE ORGANISATION

OF THE UNITED KINGDOM

*The Chairman, Committee and Members of AMSAT-UK wish to record their*

*appreciation to*  
*Dr. B. Pidoux F6BVP*

*Speaker at The Seventh AMSAT-UK Colloquium*

*held at The Lecture Halls of the University of Surrey, England*

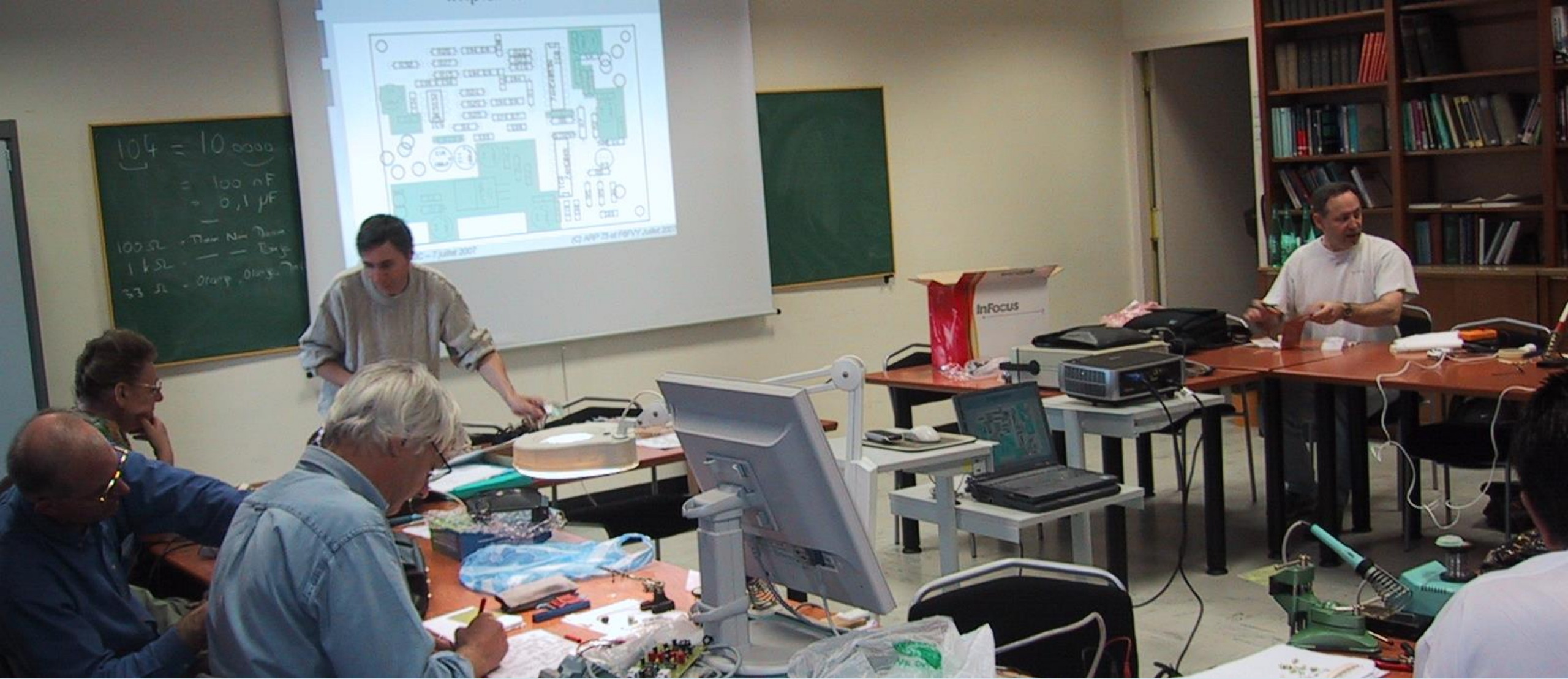
*29th July 1992 — 2nd August 1992*

*For and on Behalf of those present*

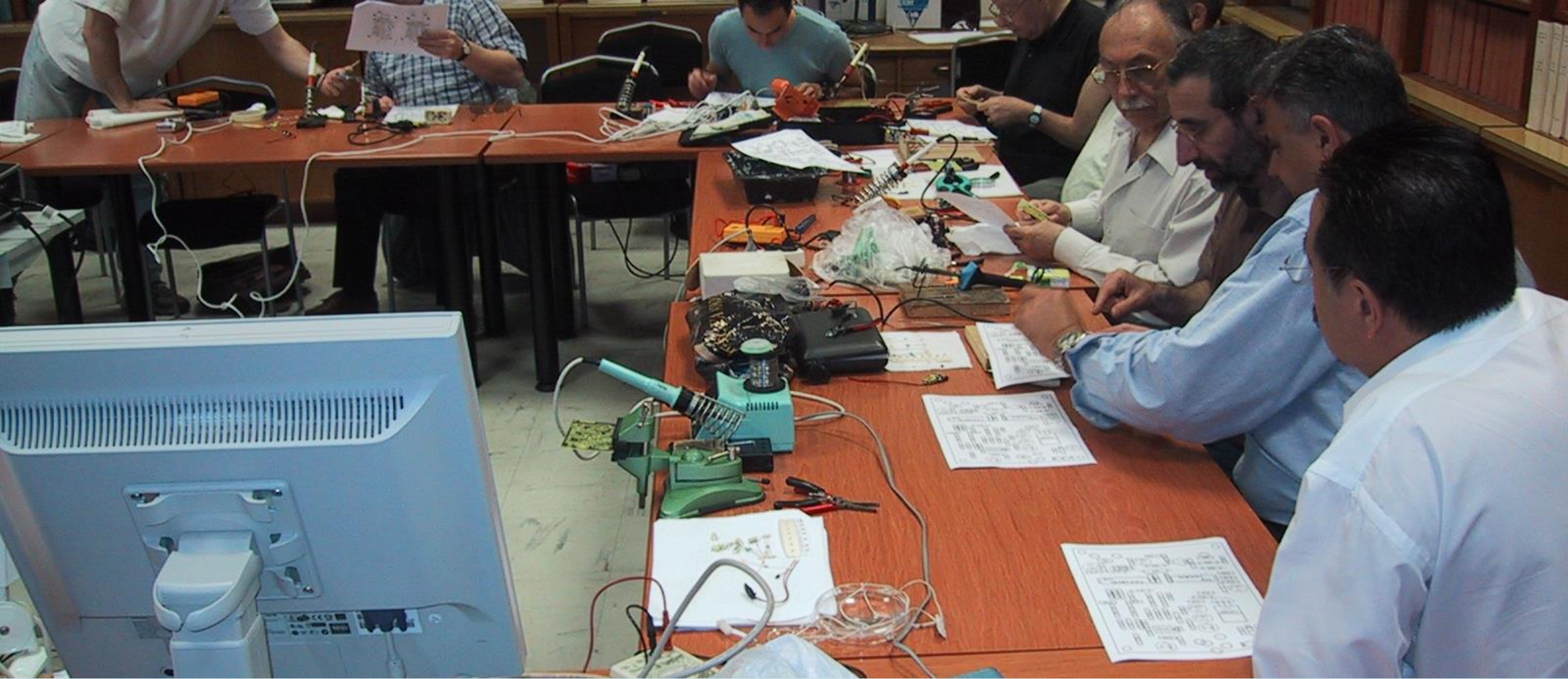
*Arthur B. Lee*.....G2UK

Chairman AMSAT-UK





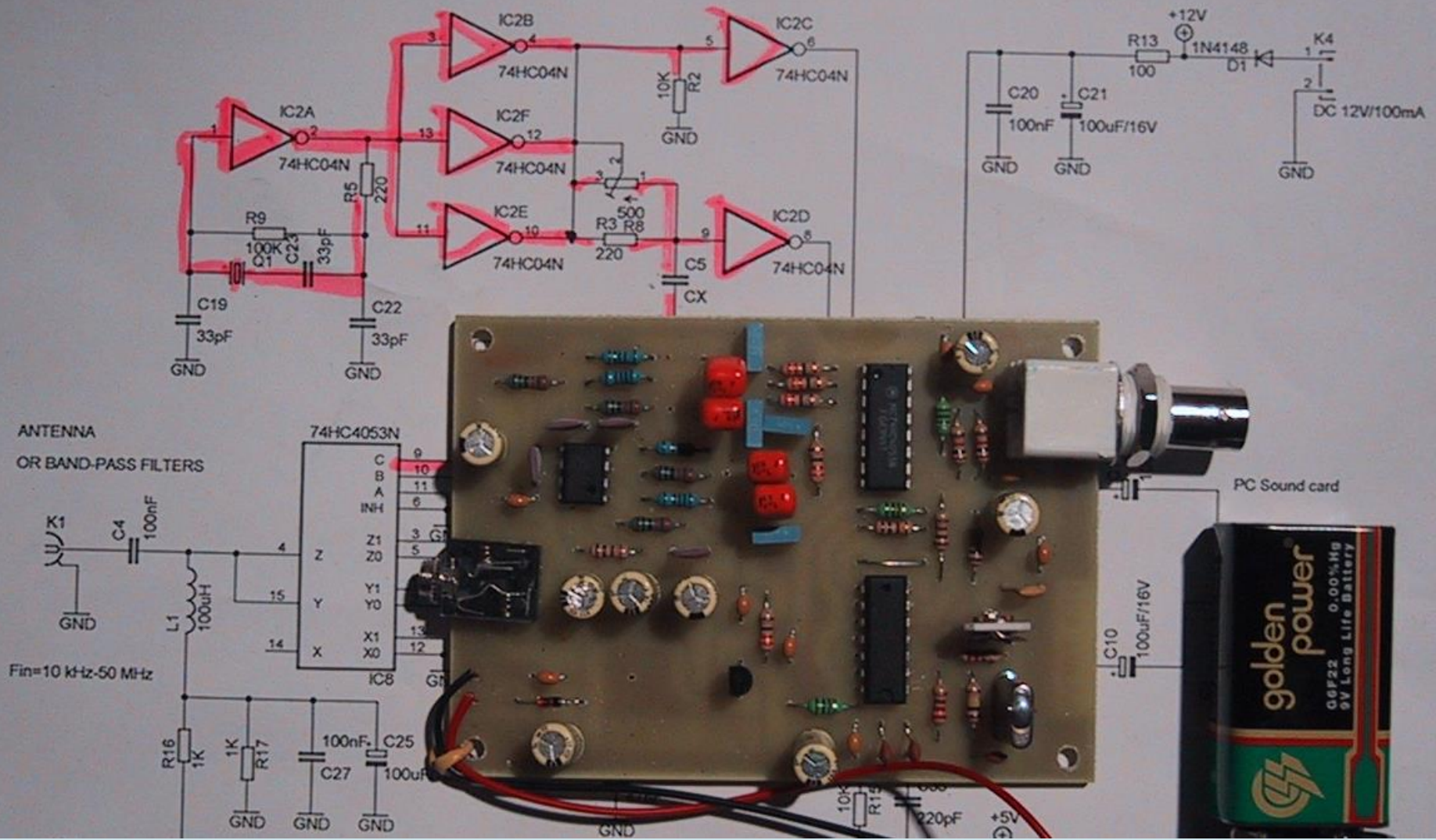
**Atelier pratique ARP75 - récepteur SDR 40 m – 7/7/2007**



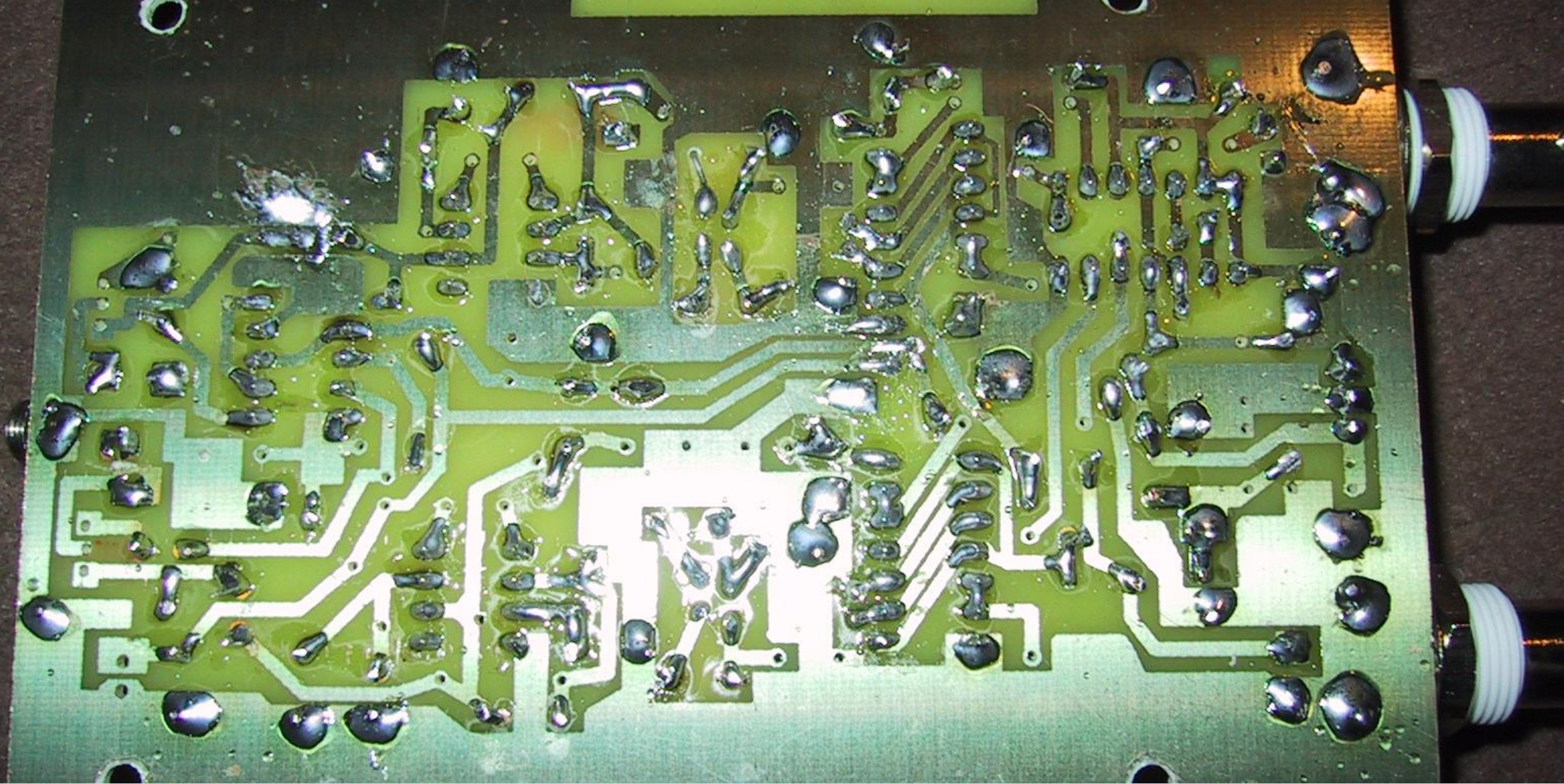
**Atelier pratique ARP75 - récepteur SDR 40 m**



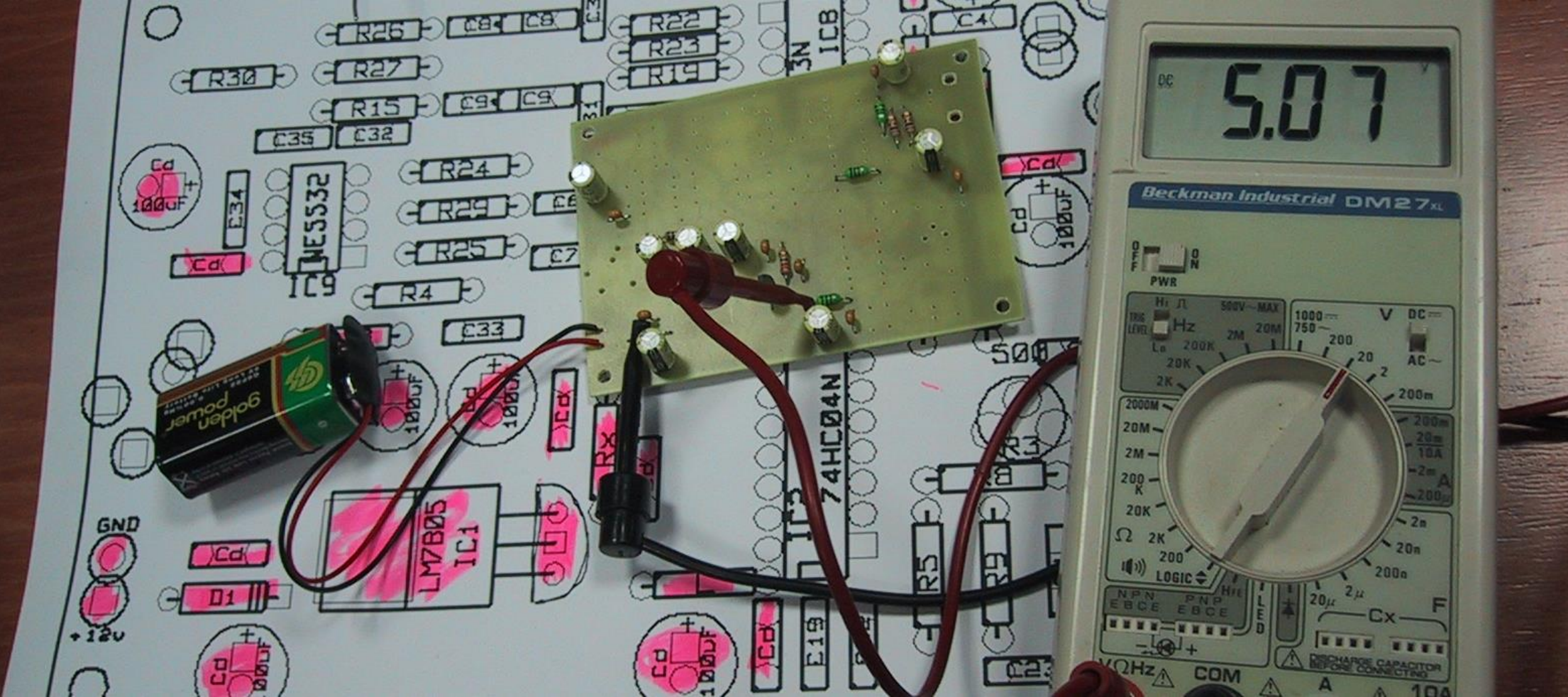
Atelier pratique ARP75 - récepteur SDR 40 m



Atelier pratique ARP75 - récepteur SDR 40 m

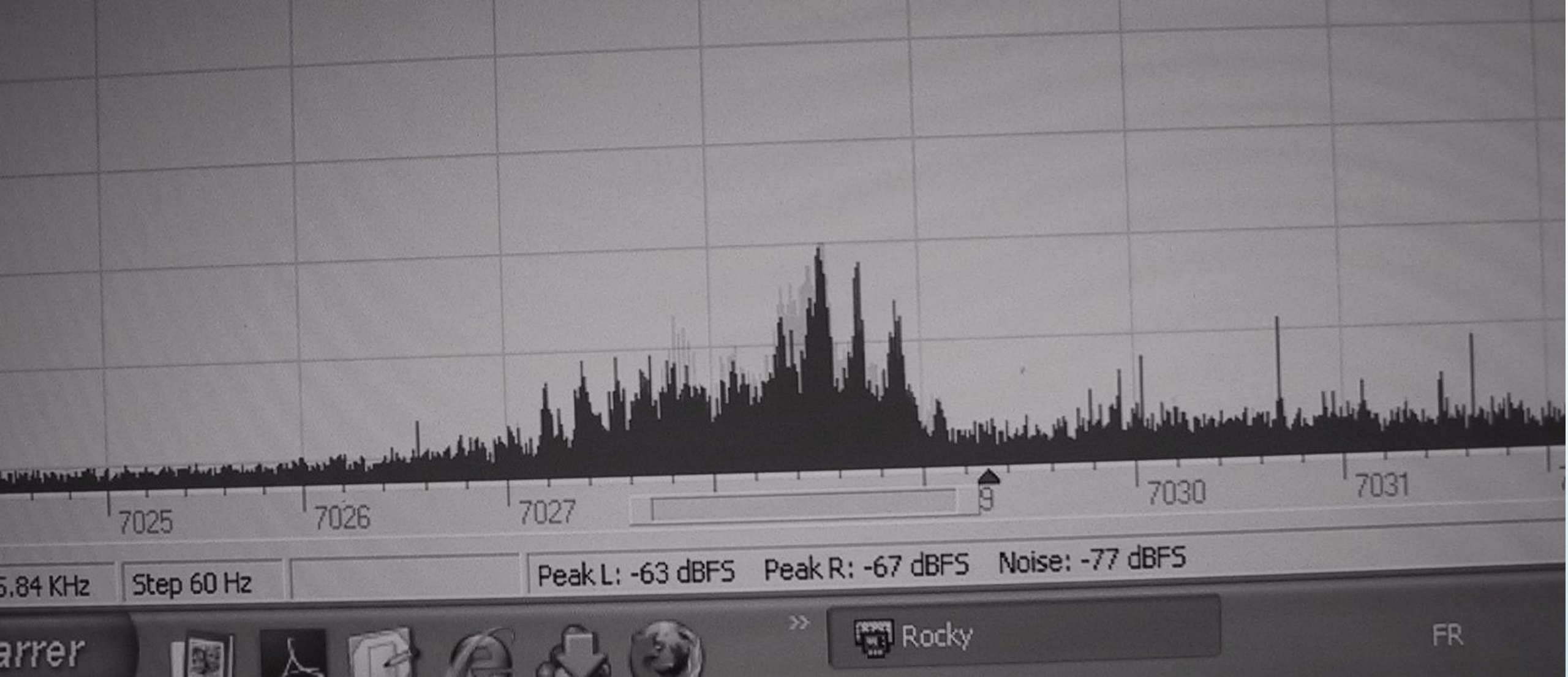


Atelier pratique ARP75 - récepteur SDR 40 m



Atelier pratique ARP75 - récepteur SDR 40 m





**Atelier pratique ARP75 - récepteur SDR 40 m - 7/7/2007**



**DV DONGLE + RaspBerry Pi = Point d'accès DSTAR**  
<http://raspberrypijectsi.blogspot.fr/2013/12/dv-dongle.html>

ARRL Centennial — Advancing the Art and Science of Radio Since 1914



# QST

DEVOTED ENTIRELY TO AMATEUR RADIO

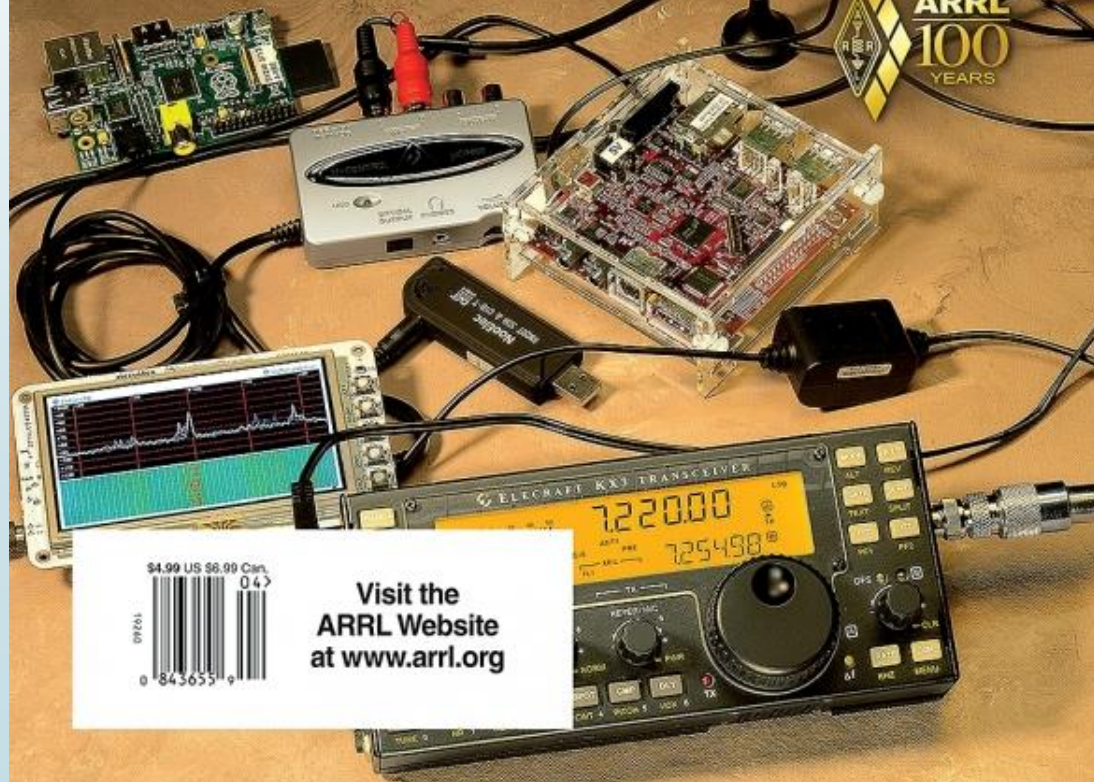
April 2014

WWW.ARRL.ORG

## Microcomputers and Amateur Radio —A Perfect Combination

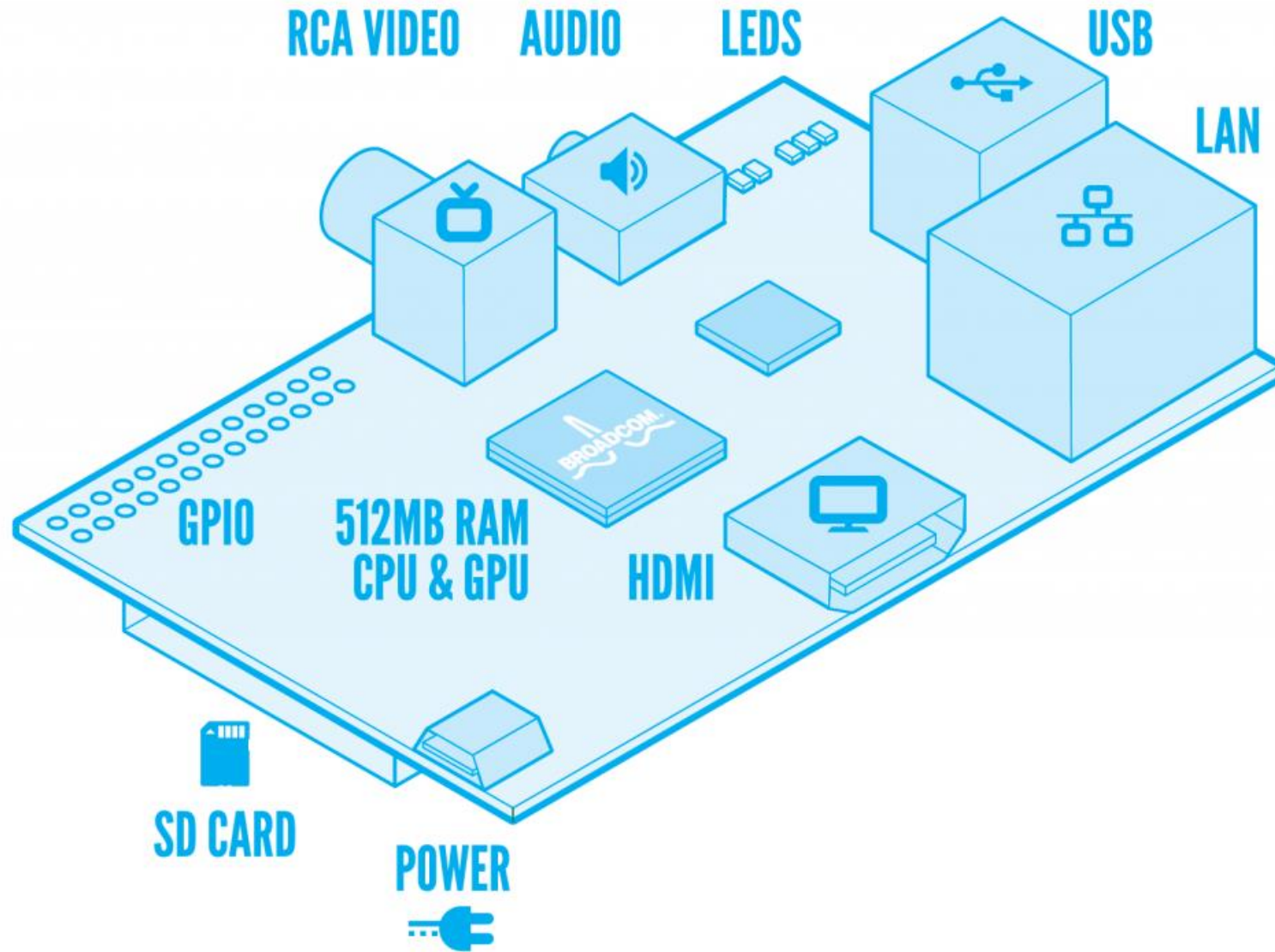
*QST* reviews:

- Wouxun KG-UV920P-A  
Dual Band FM Transceiver
- Array Solutions AS-SAL-20  
Shared Apex Loop Array  
Receiving Antenna



Visit the  
ARRL Website  
at [www.arrl.org](http://www.arrl.org)

# RASPBERRY PI MODEL B



## 2b Connect display

If *not* using HDMI, plug in your analogue TV or display

## 3 Connect input

Plug in a USB keyboard and mouse

## 4 Connect network

Connect to your wired network [optional]

## 1 Insert SD card

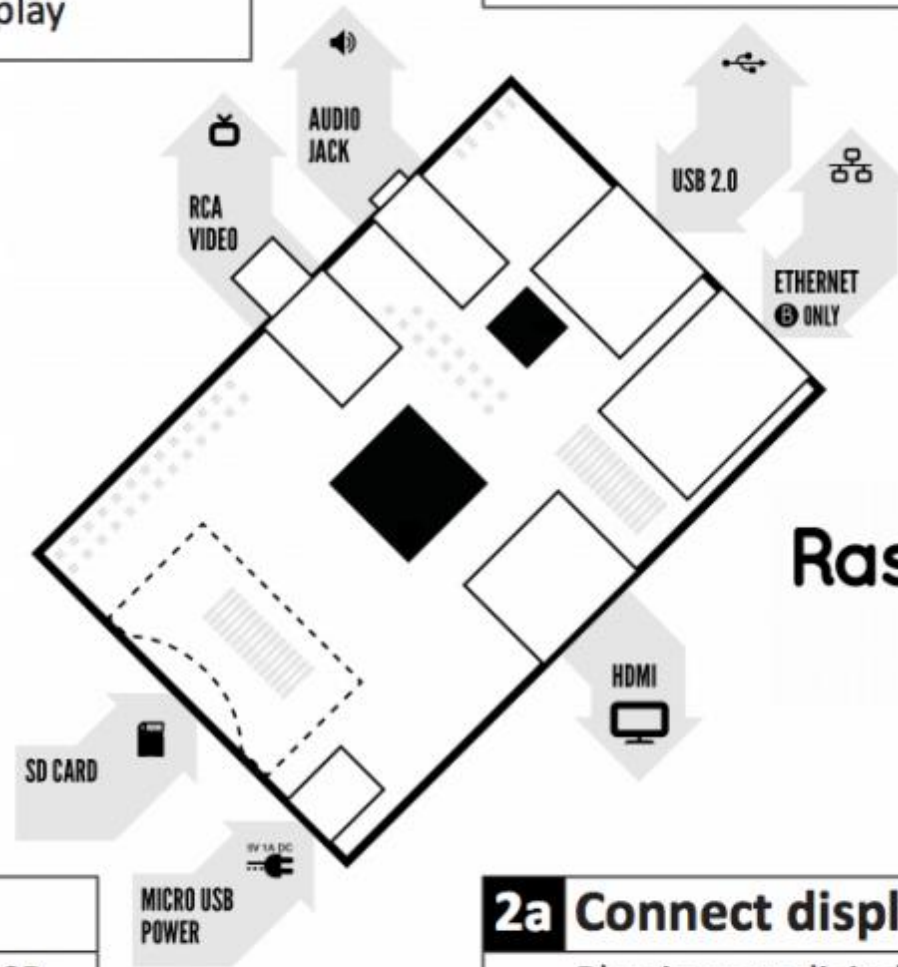
See page 3 for how to prepare the SD card

## 5 Power up

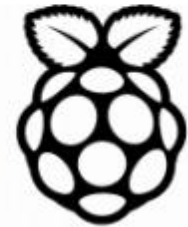
Plug in the micro USB power supply

## 2a Connect display

Plug in your digital TV or monitor



Raspberry Pi  
Quick start





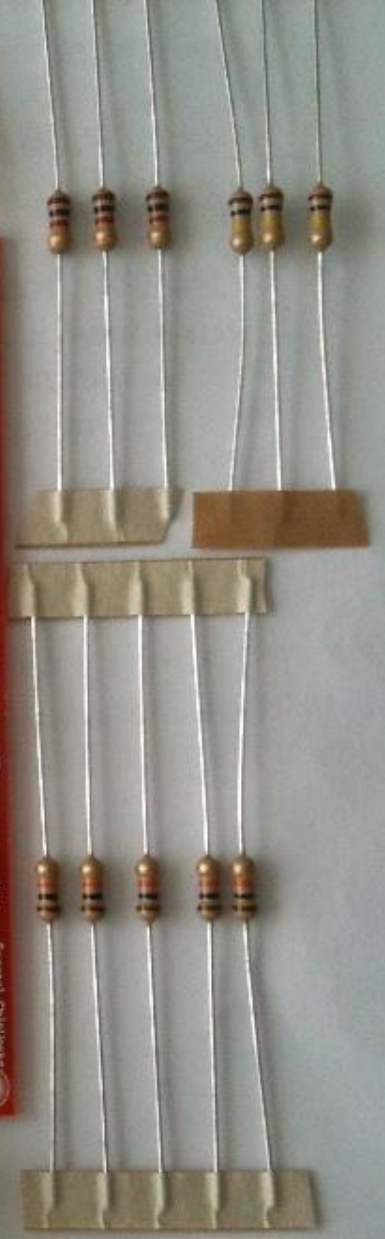
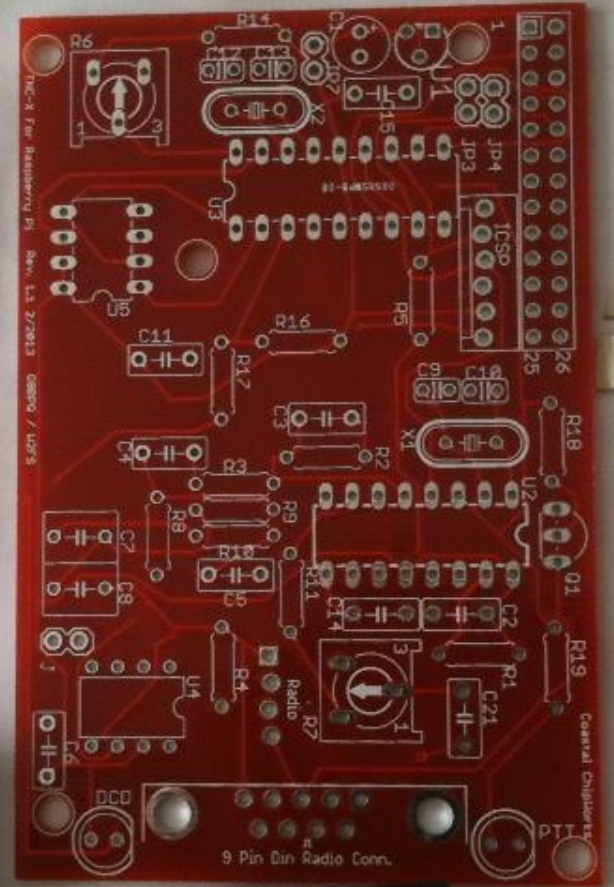
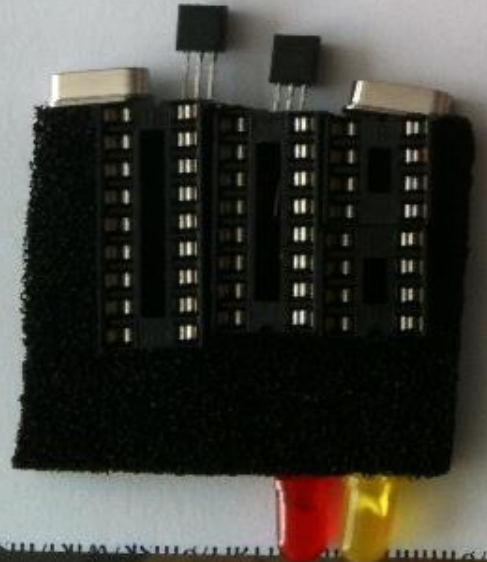
**Le nano ordinateur RaspBerry Pi (boîtier Pimoroni)  
modèle B - 2012**



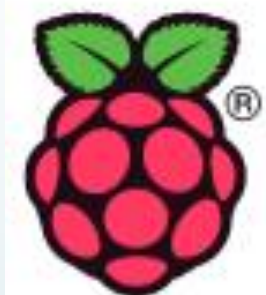




RasPi stacking headers  
adafru.it/1112







# Raspberry Pi

## MODEL B+



Product Name

Raspberry Pi Model B+



# Caractéristiques du Rpi modèle B+

## Model B+

The Model B+ is the higher-spec variant of the Raspberry Pi. It replaced the original [Model B](#) in July 2014. Compared to the Model B it has:

- **More GPIO.** The GPIO header has grown to 40 pins, while retaining the same pinout for the first 26 pins as the Model B.
- **More USB.** We now have 4 USB 2.0 ports, compared to 2 on the Model B, and better hotplug and overcurrent behaviour.
- **Micro SD.** The old friction-fit SD card socket has been replaced with a much nicer push-push micro SD version.
- **Lower power consumption.** By replacing linear regulators with switching ones we've reduced power consumption by between 0.5W and 1W.
- **Better audio.** The audio circuit incorporates a dedicated low-noise power supply.
- **Neater form factor.** We've aligned the USB connectors with the board edge, moved composite video onto the 3.5mm jack, and added four squarely-placed mounting holes.

## Specifications

<b>Chip</b>	Broadcom BCM2835 SoC
<b>Core architecture</b>	ARM11
<b>CPU</b>	700 MHz Low Power ARM1176JZFS Applications Processor
<b>GPU</b>	Dual Core VideoCore IV® Multimedia Co-Processor Provides Open GL ES 2.0, hardware-accelerated OpenVG, and 1080p30 H.264 high-profile decode Capable of 1Gpixel/s, 1.5Gtexel/s or 24GFLOPs with texture filtering and DMA infrastructure
<b>Memory</b>	512MB SDRAM
<b>Operating System</b>	Boots from Micro SD card, running a version of the Linux operating system
<b>Dimensions</b>	85 x 56 x 17mm
<b>Power</b>	Micro USB socket 5V, 2A

---

## Connectors:

### Ethernet

10/100 BaseT Ethernet socket

### Video Output

HDMI (rev 1.3 & 1.4)

Composite RCA (PAL and NTSC)

### Audio Output

3.5mm jack, HDMI

### USB

4 x USB 2.0 Connector

### GPIO Connector

40-pin 2.54 mm (100 mil) expansion header: 2x20 strip

Providing 27 GPIO pins as well as +3.3 V, +5 V and GND supply lines

### Camera Connector

15-pin MIPI Camera Serial Interface (CSI-2)

### JTAG

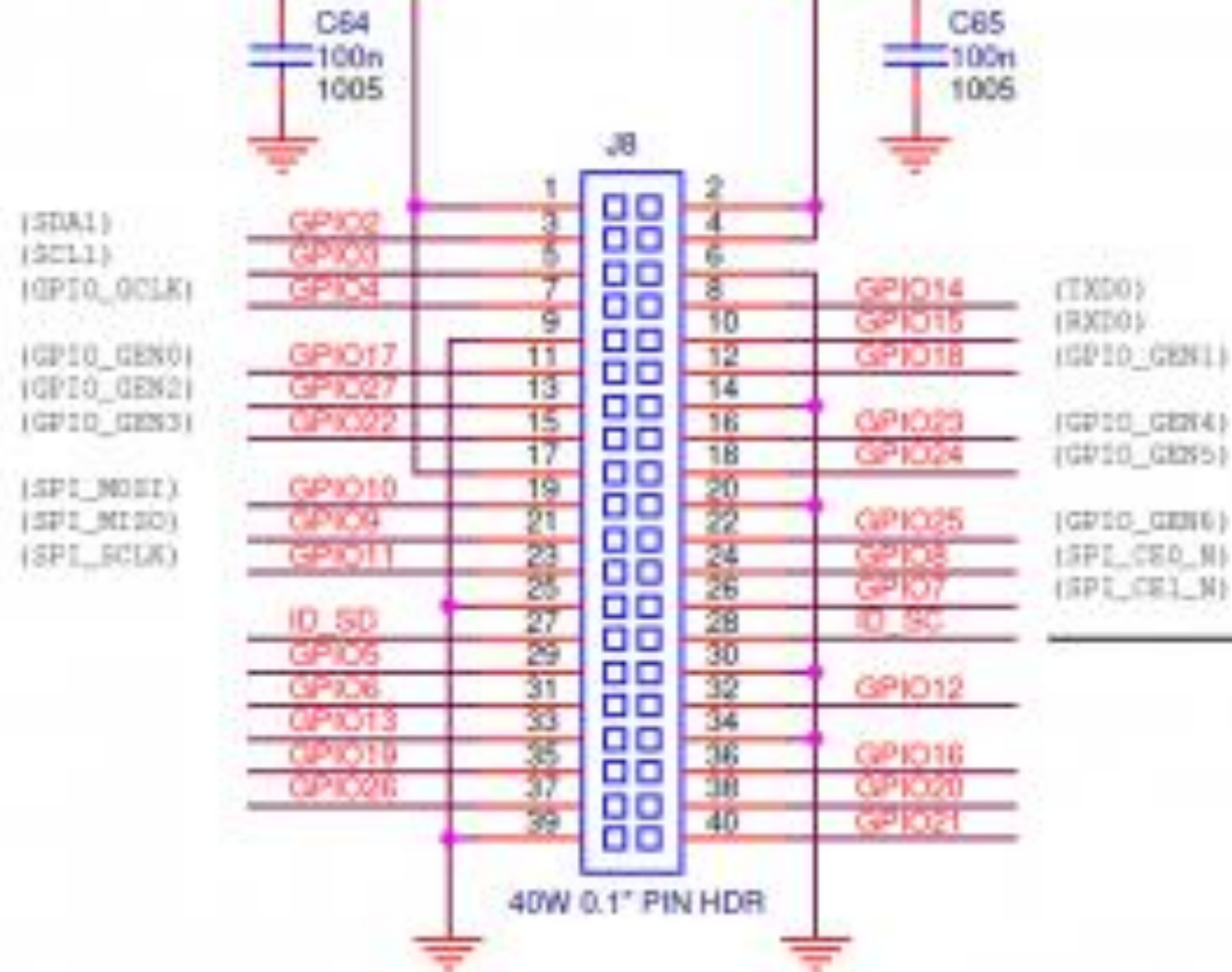
Not populated

### Display Connector

Display Serial Interface (DSI) 15 way flat flex cable connector with two data lanes and a clock lane

### Memory Card Slot

Micro SDIO



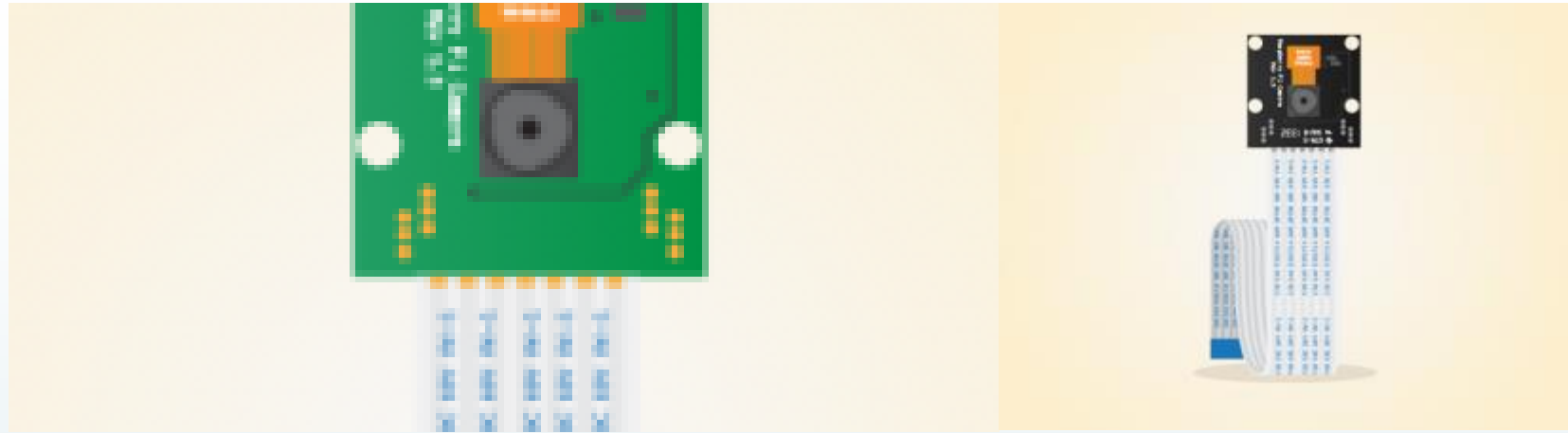
### ID\_SD and ID\_SC PINS:

These pins are reserved for ID EEPROM.

At boot time this I2C interface will be interrogated to look for an EEPROM that identifies the attached board and allows automatic setup of the GPIOs (and optionally, Linux drivers).

**DO NOT USE** these pins for anything other than attaching an I2C ID EEPROM. Leave unconnected if ID EEPROM not required.





## Modules Camera

The Raspberry Pi camera module can be used to take high-definition video, as well as stills photographs. It's easy to use for beginners, but has plenty to offer advanced users if you're looking to expand your knowledge. There are lots of examples online of people using it for [time-lapse](#), [slow-motion](#) and other video cleverness. You can also use the libraries we bundle with the camera to create [effects](#).

If you're interested in the nitty-gritty, you'll want to know that the module has a five megapixel fixed-focus camera that supports 1080p30, 720p60 and VGA90 video modes, as well as stills capture. It attaches via a 15cm ribbon cable to the CSI port on the Raspberry Pi. It can be accessed through the MMAL and V4L APIs, and there are numerous third-party libraries built for it, including the [Picamera](#) Python library.





5 Mega pixel camera

Raspbian  
9-9-14  
192.168.0.114  
hamnet-video  
44.168.19.21

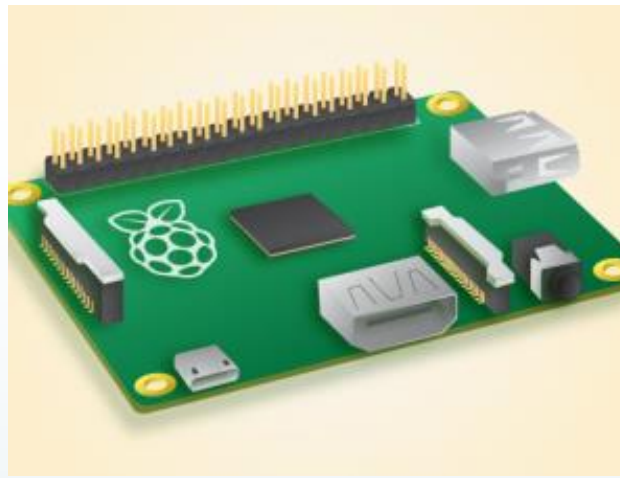
14  
F6

Raspberry Pi camera -  
F6BVP - HAMNET  
streaming

NETGEAR



## Modèle A+



The Model A+ is the low-cost variant of the Raspberry Pi. It replaced the original Model A in November 2014. Compared to the Model A it has:

More GPIO. The GPIO header has grown to 40 pins, while retaining the same pinout for the first 26 pins as the Model B.

Micro SD. The old friction-fit SD card socket has been replaced with a much nicer push-push micro SD version.

Lower power consumption. By replacing linear regulators with switching ones we've further reduced power consumption.

Better audio. The audio circuit incorporates a dedicated low-noise power supply.

Smaller, neater form factor. We've aligned the USB connector with the board edge, moved composite video onto the 3.5mm jack, and added four squarely-placed mounting holes. Model A+ is approximately 2cm shorter than the Model A.

We recommend the Model A+ for embedded projects and projects which require very low power, and which do not require Ethernet or multiple USB ports.



## [Raspberry Pi Model A+ on sale now at \\$20](#)

Like the Model A, the Model A+ uses the BCM2835 application processor and has 256MB RAM, but it is significantly **smaller** (65 mm in length, versus 86 mm for the Model A), consumes **less power**, and inherits the many improvements that we made to the Model B+, including:

- **More GPIO.** The GPIO header has grown to 40 pins.

The Model A+ is compatible with the [HAT standard](#) for add-on boards.

- **Micro SD.** The old friction-fit SD card socket has been replaced with a much nicer push-push micro SD version.

- **Better audio.** The audio circuit incorporates a dedicated low-noise power supply.



# Raspberry Pi Model A+ out now. 20% cheaper, 24% shorter and 42% thinner!

You can buy a Raspberry Pi Model A+ right now. It costs around \$20/£15, it's just 56mm long, 12mm thick and uses up to 45% less power than a Model B+...

## **Model A+ Specs:**

**Dimensions:** 65x56x12mm

**Memory:** 256MB RAM

**Expansion:** Micro SD slot, 1x USB, 40x GPIO

**Networking:** None

**Price:** ~\$20/£15

**Weight:**

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## DOWNLOADS

Download our New Out Of the Box Software (NOOBS) or a specific Operating System image.

### NOOBS

Beginners should start with NOOBS. You can purchase a [pre-installed NOOBS SD card](#) in the swag store, or download NOOBS below and follow the [NOOBS setup guide](#) in our help pages.



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Shop



## RASPBIAN

Debian Wheezy

Version: September 2014  
Release date: 2014-09-09  
Default login: pi / raspberry  
URL: [raspbian.org](http://raspbian.org)  
Kernel version: 3.12  
Release notes: [Link](#)

[Download Torrent](#)

[Download ZIP](#)

SHA-1:

951a9092dd160ea06195  
963d1afb47220588ed84



## PIDORA

Fedora Remix

Version: 20  
Release date: 2014-07-24  
URL: [pidora.ca](http://pidora.ca)  
Kernel version: 3.12.23  
Release notes: [Link](#)

[Download Torrent](#)

[Download ZIP](#)

SHA-1:

00f85ca01a6555d4b084  
3054090c222239898b7c



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<b>Global</b> First time posters -- please read!		0	79445	scep	by scep Sat Jun 09, 2012 4:11 pm
Forum		Replies	Views	Author	Last post
<b>Sticky</b> Mon petit carnet de notes pour débutants		60	25591	Sharka	by Gautrin Wed Aug 20, 2014 4:15 am

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Raspberry Pi : Le guide de l'utilisateur 26 avril 2013

de Eben Upton et Gareth Halfacree

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Recevez votre article le **mardi 16 décembre**

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EUR 19,90 D'occasion et neuf (6 offres)



Projets créatifs avec Raspberry Pi 28 février 2014

de Donald Norris

Broché

EUR 26,00 Premium

Recevez votre article le **mardi 16 décembre**

Plus de choix d'achat

EUR 26,00 D'occasion et neuf (8 offres)

La traduction du MagPi a besoin de vous!

Vous désirez vous impliquer dans la traduction française du magazine The MagPi, que ce soit pour la traduct frenchmagpi.site-mpe.fr .



 Raspberry-Pi

Comment nous rejoindre sur IRC ?  
(IRSSI)

Comment monitorer son Raspberry  
(Munin) ?

Comment installer un serveur mail ?

Comment monitorer son Raspberry (RPI  
Monitor) ?

Comment utiliser son nom de domaine  
sur un Raspberry ?

Comment installer XBMC sur Raspbian ?

Comment installer un serveur web NginX  
?

Comment ajouter un utilisateur  
phpMyAdmin ?

Comment installer un serveur web  
(LAMP) ?

Comment mettre à jour le firmware du

# Bienvenue sur mon carnet de notes

Sur ce site vous allez trouver toutes mes notes qui parlent du Raspberry-Pi.



N'hésitez pas à poster vos remarques questions ou demande d'aide sur le forum.

# RaspFR :: Forum

Forum de la communauté francophone de Raspberry Pi.

Accueil	Planet	Wiki	Liste des membres	Recherche	Inscription	Identification
---------	--------	------	-------------------	-----------	-------------	----------------

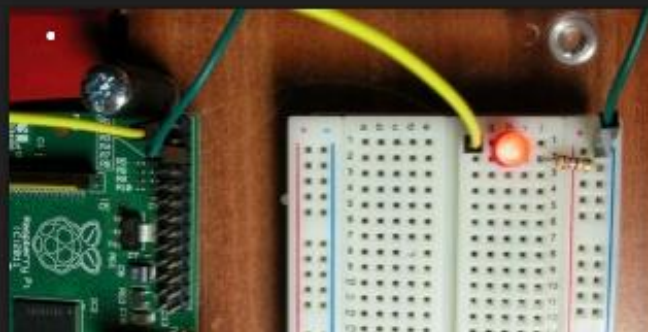
RaspFR	Discussions	Messages	Dernier message
 <b>Présentations</b> Ne soyez pas timide, venez vous présenter, nous faire partager vos projets.	209	1 114	Aujourd'hui 21:44:15 par chris57100
 <b>L'association</b> Pour tout ce qui concerne l'association elle même	16	343	11-12-2014 16:33:35 par Yaug
 <b>aPiros et évènements</b> L'organisation des aPiros et autres évènements liés au Raspberry Pi	20	303	Aujourd'hui 18:04:07 par pablo_alto
 <b>Bar</b> Pour discuter, philosopher, débattre et autres.. bref tout ce qui est un peu hors sujet.	26	113	31-10-2014 21:17:03 par Stephane59270

Raspberry Pi	Discussions	Messages	Dernier message
 <b>Installation</b> Tout ce qui concerne l'installation brute du Rasp. Rasbian, Occidentalis, installation sur disque USB...	92	788	Hier 16:34:35 par Teutates
 <b>Logiciels</b> Tout ce qui concerne les logiciels et services qui tournent sur le Rasp. XBMC, Nginx, MPD...	126	855	Aujourd'hui 16:51:41 par DD91



## UN NAVIGATEUR WEB OPTIMISÉ ET RAPIDE POUR LE RASPBERRY PI

La version final du navigateur Epiphany vient d'être annoncé aujourd'hui sur le site officiel de la fondation. Les spécificités de...



## FAIRE CLIGNOTER UNE LED AVEC LES PORTS GPIO DU RASPBERRY PI

Cet article a été rédigé par Cirdo Salut à tous, Aujourd'hui on va apprendre à manipuler la base des ports GPIO...



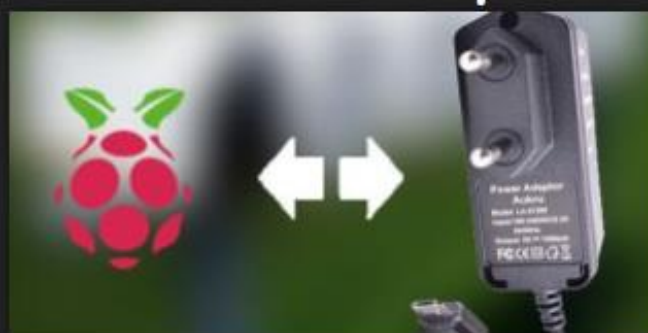
## LE NOUVEAU RASPBERRY PI MODÈLE B+

Après avoir vendus plus de 3 millions de Raspberry pi, la fondation Raspberry pi a finalement décidé de lancer un...



## UN LOGICIEL GÉNIAL POUR PRÉPARER SA CARTE SD SUR MAC

Je viens de découvrir un logiciel tous simplement géniale pour préparer sa carte SD sur mac, désolé les utilisateurs Windows,...



## L'ALIMENTATION IDÉALE POUR LE RASPBERRY PI

Si vous avez déjà eu des corruptions de la carte SD ou que votre Raspberry pi c'est déjà éteint d'un...



## CONFIGURER L'API PYTHON MINECRAFT SUR LE RASPBERRY PI

La particularité de Minecraft pi est que vous pouvez manipuler le monde du jeu en utilisant des scripts Python. Vous...

## Introduction to Computer Science and Programming

### Course Features

- [Video lectures](#)
- [Subtitles/transcript](#)
- [Online textbooks](#)
- [Assignments and solutions](#)
- [Exams and solutions](#)
- [Recitation videos](#)

### Course Description

This subject is aimed at students with **little or no programming experience**. It aims to provide students with an understanding of the role computation can play in solving problems. It also aims to help students, regardless of their major, to feel justifiably confident of their ability to write small programs that allow them to accomplish useful goals. The class will use the Python programming language.



### Instructor(s)

Prof. John Guttag

### Level

Undergraduate

# Les applications radioamateur de ce nano ordinateur sont **innombrables** !

## Communications numériques :

- Paquet radio AX.25 1200 bauds
  - BBS **LinFBB**, Nodal ROSE / **FPAC**, NetRom
- **Dx Spider** (diffusion de brèves DX)
- APRS ... (système radioamateur de rapport de position)
- **Xastir**, client APRS

## Nouvelles applications :

- Caméra et diffusion vidéo (Raspistill, Mjpg-streamer)
- Portail (Igate) APRS (**DixPRS**)
- VoIP (salon vocal numérique, **Murmur/Mumble**)
- Emetteur QRP SDR
- GPS et serveur de Temps NTP

## Autres applications :

- Commande à distance de ....
- Logique de relais
- ...



DX Call	Frequency	Spotter	Band	DXCC Info	Comment	Time
OM150MURGAS	3520.0	OM5CD	80m CW	[EU] Slovak Republic		22:01z
S54A	7012.0	E76WO	40m CW	[EU] Slovenia		22:00z
JW7XM	18132.0	W4AKO	17m SSB	[EU] Svalbard		21:58z
IK1WEG/8	3542.0	IU8BFQ	80m CW	[EU] Italy	test 40/80	21:59z
IQ0XR	7040.0	F4ESO	40m DIG	[EU] Italy	psk31	21:58z
JW7XM	18132.0	KD4JRX	17m SSB	[EU] Svalbard	5X9+ into fm14 NC	21:57z
RT6T	3512.5	JK1BSU	80m CW	[EU] European Russia	cq	21:56z
HF100BL	3760.8	UR5TEX	80m SSB	[EU] Poland	bitwa-Limanova	21:56z
OZ1AXG	28018.2	DL2MDZ	10m CW	[EU] Denmark	CQ TEST	21:56z
SQ7OTG	7041.2	EA7JTP	40m DIG	[EU] Poland	BPSK31 Tomasz Poland Ozorkow	21:54z
SVEBQ	7076.0	GM0DYU	40m DIG	[EU] Greece	tkc JT65 73	21:54z
UB4ACU	7040.0	F4ESO	40m DIG	[EU] European Russia	psk63	21:53z
IK4CLF	3595.0	IZ4XAI	80m CW	[EU] Italy	test cq I - FC	21:52z
IW1CAB	28510.0	N4FGP	10m SSB	[EU] Italy	cq USA AZ OR	21:52z
LZ60KLR	7014.0	HA6VH	40m CW	[EU] Bulgaria		21:51z
DJ5AZ	3513.4	W9KZ	80m CW	[EU] Fed. Rep. of Germany	CQ	21:50z
HF100BL	3760.8	DD8SM	80m SSB	[EU] Poland	Special call Op Les	21:47z
IQ3UH	3641.0	IW3SSD	80m SSB	[EU] Italy	cq contest	21:46z
CT1EEC	3663.0	EA1GOI	80m SSB	[EU] Portugal	ULTIMOS 3 MINUTOS FELIZ NAVI	21:45z
UR9IDX	7145.0	ON5DVO	40m SSB	[EU] Ukraine	cq	21:45z
DA0RMV	3580.0	F4ESO	80m DIG	[EU] Fed. Rep. of Germany	psk31	21:43z
OH8WW	28019.0	XE2B	10m CW	[EU] Finland		21:41z
IK0BAL	3718.0	IZ5HPQ	80m SSB	[EU] Italy	cq italia 40 80	21:40z
UE55SM	3516.2	S54A	80m CW	[EU] European Russia		21:39z
RA2FAC	1835.0	IK4ADE	160m CW	[EU] Kaliningrad	SERGEY TNX	21:39z

# F5LEN Webcluster

SFI=69  
SSN=3  
KP=  
Au=

All | CW | QRP | DIGI | IOTA | VHF | 144MHz | 220MHz | UHF | 432MHz | 1.2GHz | 2.4GHz | SHF | 5.7GHz | 10GHz

137KHz | HF | 1.8MHz | 3.5MHz | 5MHz | **7MHz** | 10MHz | 14MHz | 18MHz | 21MHz | 24MHz | 28MHz | 50MHz | 70MHz

Send | Search | Atlas | Solar forecast | Tropo | Sun tools | Contact | Guestbook | About |

For example, is it really useful when a French station spots an EA or G station on the HF bands?

E76WO	7012.0	S54A	+	2200z	2014-Dec-13	<a href="#">D</a>	<a href="#">I</a>	<a href="#">Q</a>	<a href="#">G</a>	<a href="#">M</a>
F4ESO	7040.0	IQ0XR	psk31	2158z	2014-Dec-13	<a href="#">D</a>	<a href="#">I</a>	<a href="#">Q</a>	<a href="#">G</a>	<a href="#">M</a>
EA7JTP	7041.2	SQ7OTG	BPSK31 Tomasz Poland Ozorkow	2154z	2014-Dec-13	<a href="#">D</a>	<a href="#">I</a>	<a href="#">Q</a>	<a href="#">G</a>	<a href="#">M</a>
GMODYU	7076.0	SVEBQ	tk5 JT65 73	2154z	2014-Dec-13	<a href="#">D</a>	<a href="#">I</a>	<a href="#">Q</a>	<a href="#">G</a>	<a href="#">M</a>
F4ESO	7040.0	UB4ACU	psk63	2153z	2014-Dec-13	<a href="#">D</a>	<a href="#">I</a>	<a href="#">Q</a>	<a href="#">G</a>	<a href="#">M</a>
RK6CC	7133.0	JA5WNH	CQ...DX	2153z	2014-Dec-13	<a href="#">D</a>	<a href="#">I</a>	<a href="#">Q</a>	<a href="#">G</a>	<a href="#">M</a>
HA6VH	7014.0	LZ60KLR		2151z	2014-Dec-13	<a href="#">D</a>	<a href="#">I</a>	<a href="#">Q</a>	<a href="#">G</a>	<a href="#">M</a>
ON5DVO	7145.0	UR9IDX	cq	2145z	2014-Dec-13	<a href="#">D</a>	<a href="#">I</a>	<a href="#">Q</a>	<a href="#">G</a>	<a href="#">M</a>
RK6CC	7144.0	JH5KAC	73 !!!	2140z	2014-Dec-13	<a href="#">D</a>	<a href="#">I</a>	<a href="#">Q</a>	<a href="#">G</a>	<a href="#">M</a>
IK8VSN	7013.0	IK1WEG/8	test 40/80	2135z	2014-Dec-13	<a href="#">D</a>	<a href="#">I</a>	<a href="#">Q</a>	<a href="#">G</a>	<a href="#">M</a>
DJ8VW	7076.0	5P8VW	JT65 EVEN EU125 ROMO ISL. OZFF	2131z	2014-Dec-13	<a href="#">D</a>	<a href="#">I</a>	<a href="#">Q</a>	<a href="#">G</a>	<a href="#">M</a>
IK2WSO	7013.4	S507SLG	cqing alone	2129z	2014-Dec-13	<a href="#">D</a>	<a href="#">I</a>	<a href="#">Q</a>	<a href="#">G</a>	<a href="#">M</a>
IZ0TWI	7092.0	IQ0XR		2125z	2014-Dec-13	<a href="#">D</a>	<a href="#">I</a>	<a href="#">Q</a>	<a href="#">G</a>	<a href="#">M</a>
HA6VH	7010.0	OM150MURGAS		2124z	2014-Dec-13	<a href="#">D</a>	<a href="#">I</a>	<a href="#">Q</a>	<a href="#">G</a>	<a href="#">M</a>
EC5JC	7042.4	UR1HM	+ bpsk31 73	2121z	2014-Dec-13	<a href="#">D</a>	<a href="#">I</a>	<a href="#">Q</a>	<a href="#">G</a>	<a href="#">M</a>
DJ8VW	7076.0	5P8VW	JT65 EU125 ROMO ISL. OZFF-004	2119z	2014-Dec-13	<a href="#">D</a>	<a href="#">I</a>	<a href="#">Q</a>	<a href="#">G</a>	<a href="#">M</a>
HA0LG	7004.4	HA2ERO	cq	2118z	2014-Dec-13	<a href="#">D</a>	<a href="#">I</a>	<a href="#">Q</a>	<a href="#">G</a>	<a href="#">M</a>
RK6CC	7150.0	LZ1QI	CQ...DX	2118z	2014-Dec-13	<a href="#">D</a>	<a href="#">I</a>	<a href="#">Q</a>	<a href="#">G</a>	<a href="#">M</a>
RK6CC	7147.0	JR1CFP	CQ...NA	2115z	2014-Dec-13	<a href="#">D</a>	<a href="#">I</a>	<a href="#">Q</a>	<a href="#">G</a>	<a href="#">M</a>
RK6CC	7144.0	JA5WNH	CQ...DX	2114z	2014-Dec-13	<a href="#">D</a>	<a href="#">I</a>	<a href="#">Q</a>	<a href="#">G</a>	<a href="#">M</a>
DJ8VW	7076.0	5P8VW	JT65 ROMO ISL. EU125 OZFF-004	2111z	2014-Dec-13	<a href="#">D</a>	<a href="#">I</a>	<a href="#">Q</a>	<a href="#">G</a>	<a href="#">M</a>
RK6CC	7164.0	YO555BU	+ CQ....	2100z	2014-Dec-13	<a href="#">D</a>	<a href="#">I</a>	<a href="#">Q</a>	<a href="#">G</a>	<a href="#">M</a>
EC5JC	7040.6	RV6ARQ	bpsk31 73	2059z	2014-Dec-13	<a href="#">D</a>	<a href="#">I</a>	<a href="#">Q</a>	<a href="#">G</a>	<a href="#">M</a>
RK6CC	7124.0	JH5MXB	CQ...CQ	2054z	2014-Dec-13	<a href="#">D</a>	<a href="#">I</a>	<a href="#">Q</a>	<a href="#">G</a>	<a href="#">M</a>
RK6CC	7164.0	YO555BU	+ cq...ja	2051z	2014-Dec-13	<a href="#">D</a>	<a href="#">I</a>	<a href="#">Q</a>	<a href="#">G</a>	<a href="#">M</a>

# Xastir

Xastir est un logiciel open-source dédié à [APRS](#), basé sur une interface graphique sous Motif.

Il permet de positionner sur une carte les différentes trames reçues sur une ou plusieurs radios, ou via des passerelles Internet. Entre autres fonctionnalités:

- Répéteur et routeur APRS (Fonction appelée digipeater)
- Envoi/Réception de trames en format libre.
- Tracé de parcours.

Il accepte 125 différents formats de cartes, et fonctionne sous Linux, FreeBSD, Solaris, MacOSX et Windows.

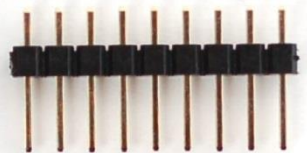
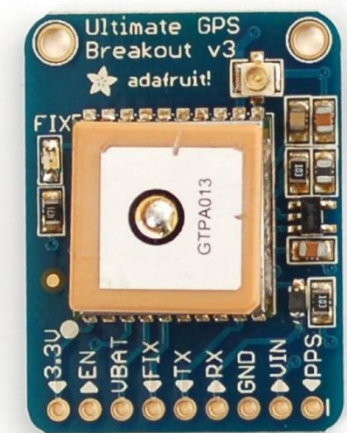
The Raspberry Pi as a Stratum-1 NTP Server



<http://www.satsignal.eu/ntp/Raspberry-Pi-NTP.html>



# Module GPS

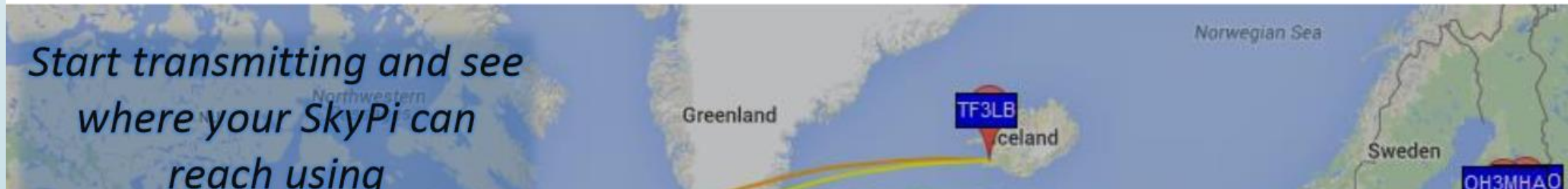




SkyPi is designed for QRP enthusiasts and experimenters who want a modern and versatile software radio created for the *Raspberry Pi*.

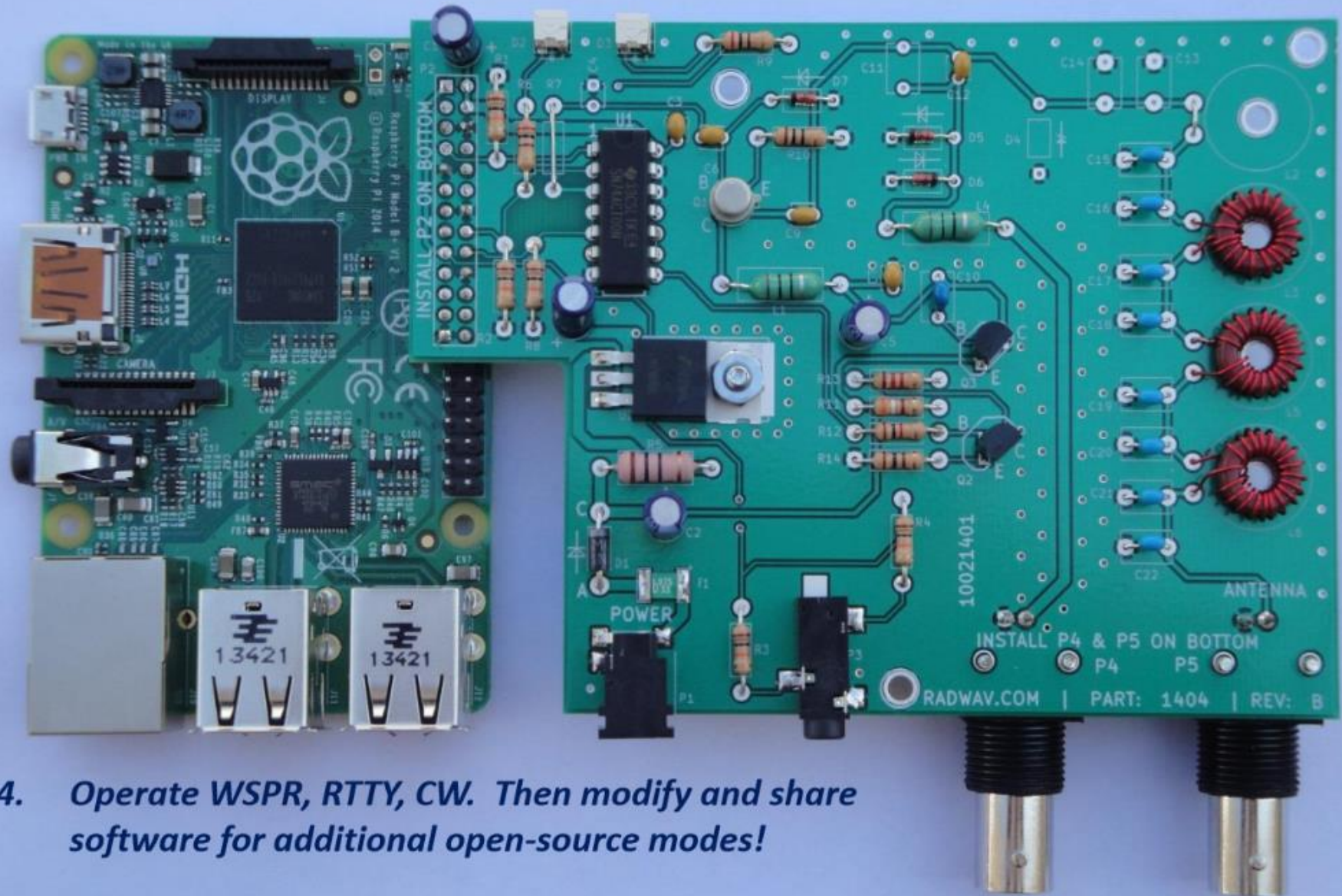
The *latest digital modes*, including WSPR, have greatly extended how far low power radios reach. SkyPi is a **1 Watt** radio, as a *kit or fully-assembled*, that transmits these new efficient modes using *open-source* software and with *no PC required*.

Start transmitting and see  
where your SkyPi can  
reach using

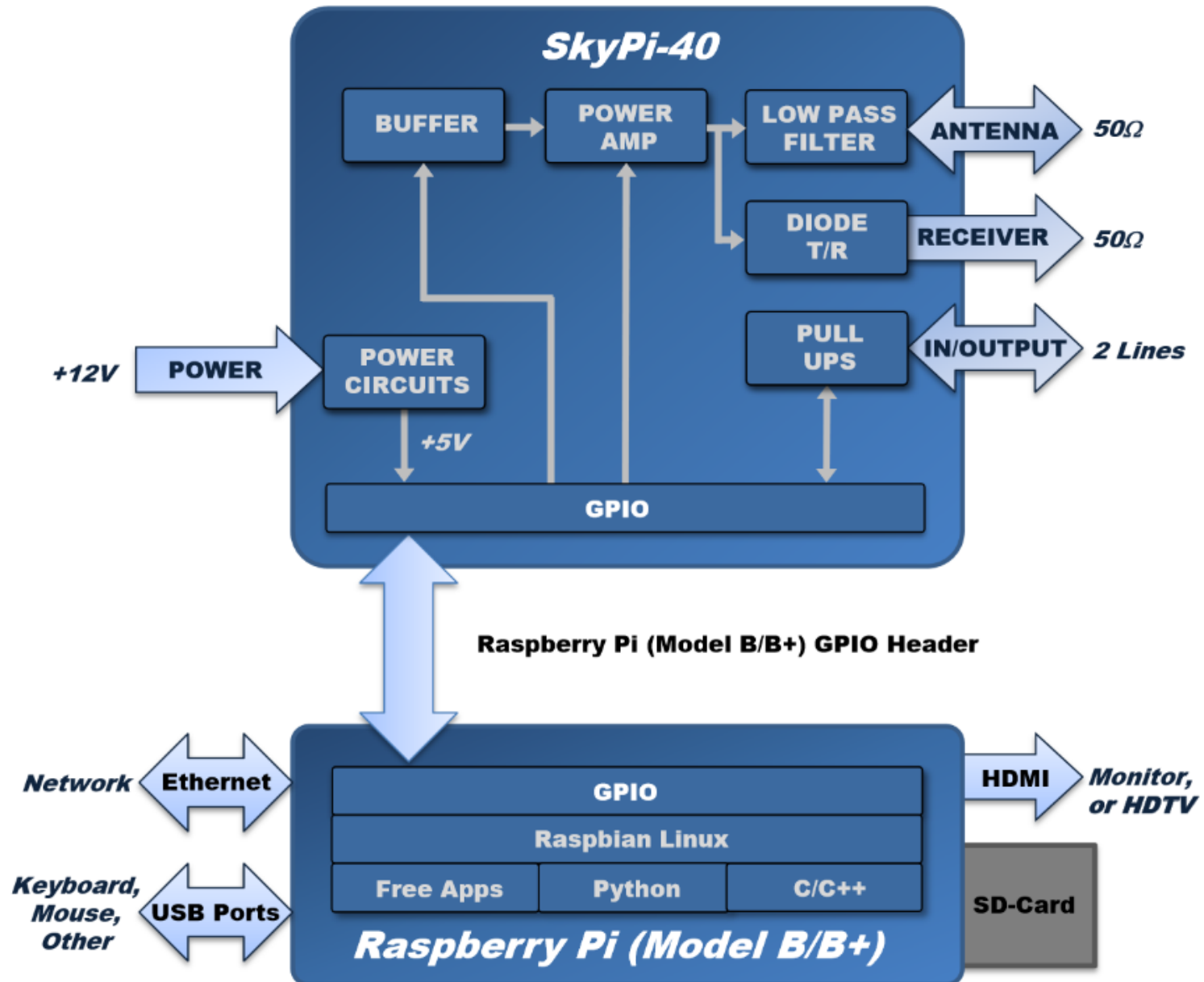


# HOW IT WORKS – DIGITAL HF QRP without a PC

1. Order SkyPi
2. Connect Raspberry Pi Model B/B+
3. Connect Antenna & +12V



4. Operate WSPR, RTTY, CW. Then modify and share software for additional open-source modes!



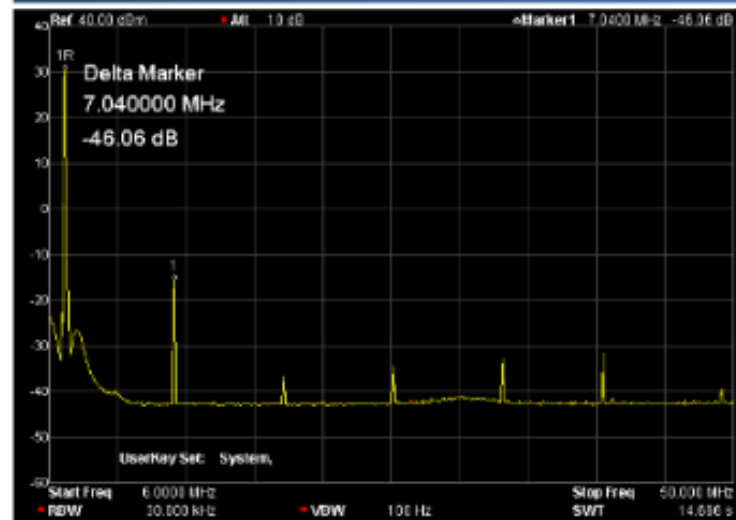
# TYPICAL PERFORMANCE

*SkyPi is designed to comply with FCC requirements for waveform purity and European RoHS standards for a cleaner environment.*

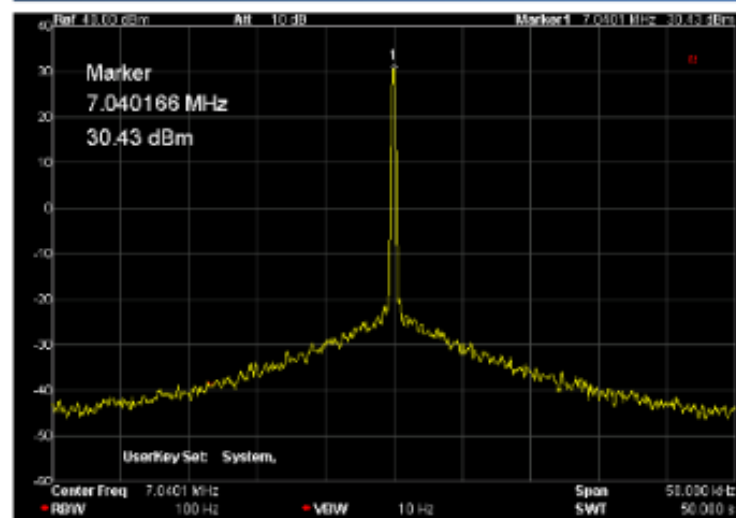
**FREQUENCY COVERAGE SkyPi-40:** 7.0-7.3 MHz (at least)

- POWER OUTPUT:** 1 Watt into 50Ω (±1dB)
- HARMONIC SUPPRESSION:** -46 dBc
- SUPPORTED MODES:**
  - WSPR** – Weak Signal Propagation Reporter
  - RTTY** – Radio Teletype
  - CW** – Morse Code
  - Open Source** – Can Develop any FSK mode
- FREQUENCY ACCURACY:** ±700 Hz
- FREQUENCY RESOLUTION:** <2 Hz
- RECEIVER PORT:** Full QSK [Option]
- POWER REQUIREMENTS [With Raspberry Pi]**
  - +12V @ 390mA- 650mA During Transmit
  - Resettable Fuse and Reverse Polarity Protection Included
- PORTS**
  - Raspberry Pi GPIO
  - +12V Input [Cable Optional]
  - BNC - Antenna
  - BNC - Receiver Port [Port Optional]
  - Digital I/O Jack [1/8" Stereo] for any two-line input/output device Key/Paddle/Other. [Cable Optional]
- RoHS:** Components & Circuit Board are RoHS Compliant

## HARMONIC SUPPRESSION



## SYNTHESIZER SPECTRUM





# Packet Radio BBS, ROSE/FPAC NetRom Node (and more\*) setup howto

This page describes how to set up RaspBerry Pi Linux system with pre configured

**AX.25 softwares on SD or micro SD cards** (September 28, 2014 11:00 UTC version)

\* Xastir (APRS), DxSpider (DX cluster), ax25tools, ax25utils ...

**INTRODUCTION** : the goal of this project is to provide a Raspberry Pi Linux system with a few AX.25 packet radio applications already installed in order to save Sysops a lot of time searching for, installing and configuring the packages. There are absolutely no special patch of the original Rasbian distro nor any application changes. All the software included are unmodified. However, having them pre installed makes things easier.

- **New updated SD card image** based on latest Raspbian distro may be downloaded from <http://dl.free.fr/IVbju3jeP> or <http://dl.free.fr/ldLobDLnX>
- Just in case, there is a second file available for download. Name is different but it is exactly the same SD card image file.
- To start downloading click on the above link. A windows dialog box should appear. **"Enregistrer le fichier"** circle should be selected then click onto **OK**.
- Or if a full new page in french is opened, click on **"Valider et télécharger le fichier"** area.
- **Or you could see nothing when you click on the link !** If you click again on the file link, a window will open with a message telling that too much slots are open. **This means that the file is actually already downloading silently in the background.** So be very



Hamradio



Music

Wednesday, 05 March 2014 22:49

## DIXPRS on a Raspberry

Written by [PA0ESH](#)font size  [Print](#)[Email](#)Rate this item      (0 votes)

**This article describes how to setup an iGate / Digipeater called DIXPRS on a Raspberry**

**You can find more info about DIXPRS on the project's website, or look up the google group for DIXPRS.**

The article below is published as a pdf file, easy to download, but able to read online as well.

The related scripts can be found in the download section



Page :

1

sur 15



Zoom automatique











### DIXPRS ON A RASPBERRY

05/03/2014 10:48:45 pm

# DIXPRS STATUS PAGE

SETUP	
Callsign:	<a href="#">F6BVP-10</a>
Version:	DIXPRS 2.2.2 05-09-2012
Platform:	Linux 3.12.28+ (armv6l), Python 2.7.3
Position:	48.8846N 2.3134E
Owner:	Bernard, F6BVP
Port(s):	144.800 MHz APRS
SYSTEM	
Time:	13-12-2014 16:13:27z
Started:	03-12-2014 23:42:52z
Uptime:	9 days 16 hours 30 mins
INFO	
Positions stored:	305
Heard direct in last hour:	FOGPI-9 F1BIV-1 F1FPP-4 F1HKX-13 F1NVW F4CZL-9 F4FGI-3 F4GUK-10 F5GSJ-13 F5KEE F5KEE-13 F5KTR-3 F5NKP F5RAC-4 F5STB F5UGS F5ZFY-3 F6INI F6KBS-3 F6KGT-4 F8COD F8KGD-3 F8KRH F8KSM-3
IGATE counters:	MSG_CNT=0 LOC_CNT=35 DIR_CNT=24 RF_CNT=41
DX (1h)	F1FPP-4 13-12-2014 15:44z 88.1 km F1HKX-13 13-12-2014 15:47z 59.8 km
DX (24h)	F1FPP-4 13-12-2014 15:44z 88.1 km F8KGO-13 13-12-2014 14:48z 64.2 km
DX (all)	F8KOP-4 01-12-2014 15:13z 311.9 km F5RMK 07-12-2014 10:24z 234.1 km

**Commentaire:** *APRS I-gate Paris JN18dv720H 144,800 MHz Raspberry <http://f6bvp.org>***Dernier statut:** *Connected to T2RADOM count 1/0***Position:** 48°53.08' N 2°18.80' E - locator **JN18DV720H** - [Carte](#) - [Carte statique](#)  
4.3 km Nord-ouest cap 323° de [Paris, Paris, Île-de-France, France](#) [?]  
7.9 km Ouest cap 274° de [Les Lilas, Département de Seine-Saint-Denis, Île-de-France, France](#)  
8.9 km Ouest cap 270° de [Romainville, Département de Seine-Saint-Denis, Île-de-France, France](#)  
112.8 km Sud cap 180° de [Amiens, Département de la Somme, Picardie, France](#)**Dernière position:** 2014-12-13 17:14:52 CET (25m20s Il y a)  
2014-12-13 17:14:52 CET heure locale Paris, France [?]**Dernière télémétrie:** 2014-12-13 17:27:52 CET (12m20s Il y a) - [télémétrie](#)  
RxTot: 126 pkt/15m, RxDir: 35 pkt/15m, RxTot: 24 stn/15m, RxDir: 17 stn/15m, TxTot: 35 pkt/15m  
**WEB** **NWS** **BOM****Appareil:** Bela, HA5DI: DIXPRS version 22 (software)**Dernier chemin:** F6BVP-10>APDI22 via TCPIP\*,qAC,T2RADOM**Positions enregistrées:** 1**Débit de paquet:** 196 secondes entre paquets sur une moyenne de 9780 secondes.**Autres SSID:** [F6BVP](#) **APRS igate – Statistiques pour 2014-12:****Stations entendues directement:** 57 Sur la voie radio - [Carte](#)**Dernière station entendue directement:** 2014-12-13 17:39:56 CET (16s Il y a)**Paquet de position entendu directement:** 2880 Sur la voie radio**Paquet de position envoyé à APRS-IS:** 5040 - [Carte](#)Stations proches de la position actuelle de **F6BVP-10** - [plus de stations](#)


























indicatif	distance	dernier entendu - CET	indicatif	distance	dernier entendu - CET
<a href="#">F8VOO-10</a> 	328.2 m 14°	2014-12-02 23:15:23	<a href="#">F6BVP</a> 	396.6 m 262°	2014-12-01 12:54:25
<a href="#">XE1YSV-5</a> 	1.5 km 353°	2014-12-10 23:13:30	<a href="#">FOGPI-9</a> 	1.7 km 201°	2014-12-13 17:39:06
<a href="#">HB9MMC-5</a> 	2.2 km 280°	2014-11-21 18:08:05	<a href="#">F6INI-P</a> 	3.4 km 100°	2014-11-20 12:51:00
<a href="#">F4GPK-9</a> 	3.4 km 165°	2014-12-09 08:25:19	<a href="#">F6CNB-10</a> 	3.6 km 98°	2014-12-10 18:23:06

Stations proches de la position actuelle de **F6BVP-10** - plus de stations

indicatif		distance	dernier entendu - CET	indicatif		distance	dernier entendu - CET
F8VOO-10		328.2 m 14°	2014-12-02 23:15:23	F6BVP		396.6 m 262°	2014-12-01 12:54:25
XE1YSV-5		1.5 km 353°	2014-12-10 23:13:30	FOGPI-9		1.7 km 201°	2014-12-13 17:39:06
HB9MMC-5		2.2 km 280°	2014-11-21 18:08:05	F6INI-P		3.4 km 100°	2014-11-20 12:51:00
F4GPK-9		3.4 km 165°	2014-12-09 08:25:19	F6CNB-10		3.6 km 98°	2014-12-10 18:23:06
F5KTR-3		3.6 km 98°	2014-12-13 17:29:25	F1ZPL B		3.6 km 98°	2014-12-13 17:23:33
F1ZPL-B		3.6 km 98°	2014-12-13 17:23:43	F1ZPL C		3.6 km 98°	2014-12-13 17:23:13
F1ZPL-C		3.6 km 98°	2014-12-13 17:23:23	F5RAC-4		3.6 km 98°	2014-12-13 17:35:25
F5KTR		3.6 km 98°	2014-12-13 17:15:52	EW5950		4.2 km 105°	2014-12-13 17:30:52
F4GLT-5		4.3 km 279°	2014-12-12 22:27:37	F5OBI		4.8 km 298°	2014-11-29 17:52:36
F5TUN-7		4.9 km 181°	2014-12-12 20:42:13	F5TUN-9		5.0 km 184°	2014-11-23 14:44:22

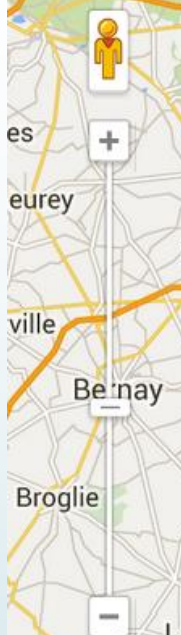
Stations qui ont entendu **F6BVP-10** directement par radio - 2014-12 ▾

indicatif		pkts	entendu en premier - CET	dernier entendu	le plus long	(tx => rx)	le plus long à - CET
F1BIV-1		25	2014-12-01 21:42:48	2014-12-08 18:21:26	JN18DV > JN18DT	6.5 km 170°	2014-12-08 18:21:26
F6KGT-4		6	2014-12-12 11:43:55	2014-12-12 14:43:55	JN18DV > JN19DF	40.5 km 356°	2014-12-12 14:43:55
F6KID-3		1	2014-12-03 17:49:54	2014-12-03 17:49:54	JN18DV > JN19QO	111.9 km 42°	2014-12-03 17:49:54
F4EIR-2		3	2014-12-02 16:49:55	2014-12-03 04:19:55	JN18DV > JN18JU	33.1 km 93°	2014-12-03 04:19:55
F5KEE		3	2014-12-05 08:43:54	2014-12-12 09:43:53	JN18DV > JN18EQ	23.7 km 171°	2014-12-12 09:43:53
F6GVH-1		4	2014-12-02 01:12:57	2014-12-02 03:42:57	JN18DV > JN17HX	102.8 km 166°	2014-12-02 03:42:57
F4GUK-10		94	2014-12-01 13:26:38	2014-12-13 16:13:55	JN18DV > JN18GT	18.9 km 113°	2014-12-13 16:13:55
F4GUK-1		1	2014-12-01 16:56:38	2014-12-01 16:56:38	JN18DV > JN18GT	19.0 km 113°	2014-12-01 16:56:38
F6CNB-3		294	2014-12-01 12:56:39	2014-12-13 17:13:53	JN18DV > JN18BQ	24.6 km 210°	2014-12-13 17:13:53
F5KTR-3		50	2014-12-03 20:19:54	2014-12-13 15:44:30	JN18DV > JN18EV	3.6 km 98°	2014-12-13 15:44:30
F6KBS-3		139	2014-12-01 17:56:38	2014-12-13 13:13:55	JN18DV > JN18BR	20.7 km 212°	2014-12-13 13:13:55

indicatif	pkts	entendu en premier - CET	dernier entendu	le plus long	(rx => tx) ^	le plus long à - CET
F5EWB-3	 9	2014-12-01 23:24:29	2014-12-02 06:35:05	JN07RT > JN18DV	133.8 km 208°	2014-12-02 06:35:05
F0DYA	 8	2014-12-01 23:16:14	2014-12-02 13:58:43	JN07VT > JN18DV	126.5 km 198°	2014-12-02 13:58:43
F6KID-3	 2	2014-12-01 23:03:56	2014-12-02 03:03:56	JN19QO > JN18DV	111.9 km 42°	2014-12-02 03:03:56
F8KCS-2	 10	2014-12-01 21:54:30	2014-12-07 04:11:48	JN19RN > JN18DV	111.5 km 46°	2014-12-07 04:11:48
F5KCS-2	 12	2014-12-01 22:56:58	2014-12-02 07:16:59	JN19DU > JN18DV	107.7 km 358°	2014-12-02 07:16:59
F5ZSQ-3	 11	2014-12-01 22:04:06	2014-12-02 03:04:11	JN08QE > JN18DV	105.3 km 222°	2014-12-02 03:04:11
F1MKG-3	 10	2014-12-01 22:50:45	2014-12-07 02:10:30	JN08KQ > JN18DV	104.5 km 260°	2014-12-07 02:10:30
F1MKG	 2	2014-12-01 22:49:20	2014-12-02 06:19:22	JN08KQ > JN18DV	104.5 km 260°	2014-12-02 06:19:22
F1JGP-4	 2	2014-12-02 01:06:08	2014-12-02 01:50:31	JN17BX > JN18DV	100.9 km 189°	2014-12-02 01:50:31
F1FPP-4	 3	2014-12-01 22:58:24	2014-12-02 01:58:25	JN09PH > JN18DV	87.9 km 303°	2014-12-02 01:58:25
F4GGK	 4	2014-12-01 20:09:29	2014-12-07 22:36:33	JN09RC > JN18DV	67.0 km 291°	2014-12-07 22:36:33
F1HKX-13	 4	2014-12-02 00:21:29	2014-12-08 06:27:44	JN18LN > JN18DV	59.7 km 128°	2014-12-08 06:27:44
F1MKG-9	 13	2014-12-03 06:12:15	2014-12-08 06:15:46	JN08SS > JN18DV	55.1 km 258°	2014-12-05 06:03:33
F1IKD-9	 331	2014-12-01 17:54:32	2014-12-13 13:35:53	JN09TA > JN18DV	53.6 km 287°	2014-12-07 18:23:31
F1ZPK-3	 83	2014-12-01 22:50:58	2014-12-06 20:06:29	JN08UX > JN18DV	46.9 km 281°	2014-12-06 20:06:29
F4FGI-3	 353	2014-12-01 22:10:57	2014-12-13 17:38:25	JN19FG > JN18DV	46.2 km 16°	2014-12-13 17:38:25
F8KSM-3	 117	2014-12-01 22:00:23	2014-12-13 17:30:11	JN18HN > JN18DV	45.6 km 147°	2014-12-13 17:30:11
F8KGD-3	 58	2014-12-01 22:01:06	2014-12-13 17:10:03	JN18KR > JN18DV	45.0 km 116°	2014-12-13 17:10:03
F5HCC-9	 118	2014-12-01 16:30:06	2014-12-13 14:25:56	JN09VB > JN18DV	44.5 km 295°	2014-12-08 06:41:40
F5ZFY-3	 239	2014-12-01 22:01:12	2014-12-13 17:37:45	JN09XF > JN18DV	43.9 km 325°	2014-12-13 17:37:45
F6KGT-4	 128	2014-12-01 22:20:52	2014-12-13 17:20:58	JN19DF > JN18DV	40.5 km 356°	2014-12-13 17:20:58
F4FGI-9	 2	2014-12-06 14:08:30	2014-12-06 14:28:22	JN19FF > JN18DV	40.0 km 16°	2014-12-06 14:28:22
F5UGS-9	 78	2014-12-01 17:33:49	2014-12-06 09:31:06	JN09XA > JN18DV	32.1 km 297°	2014-12-06 09:31:06
F5UGS	 32	2014-12-02 18:55:35	2014-12-13 17:33:13	JN09XA > JN18DV	31.8 km 296°	2014-12-13 17:33:13
F4EIR-9	 5	2014-12-02 18:54:42	2014-12-05 02:16:02	JN18HQ > JN18DV	31.4 km 137°	2014-12-05 02:16:02

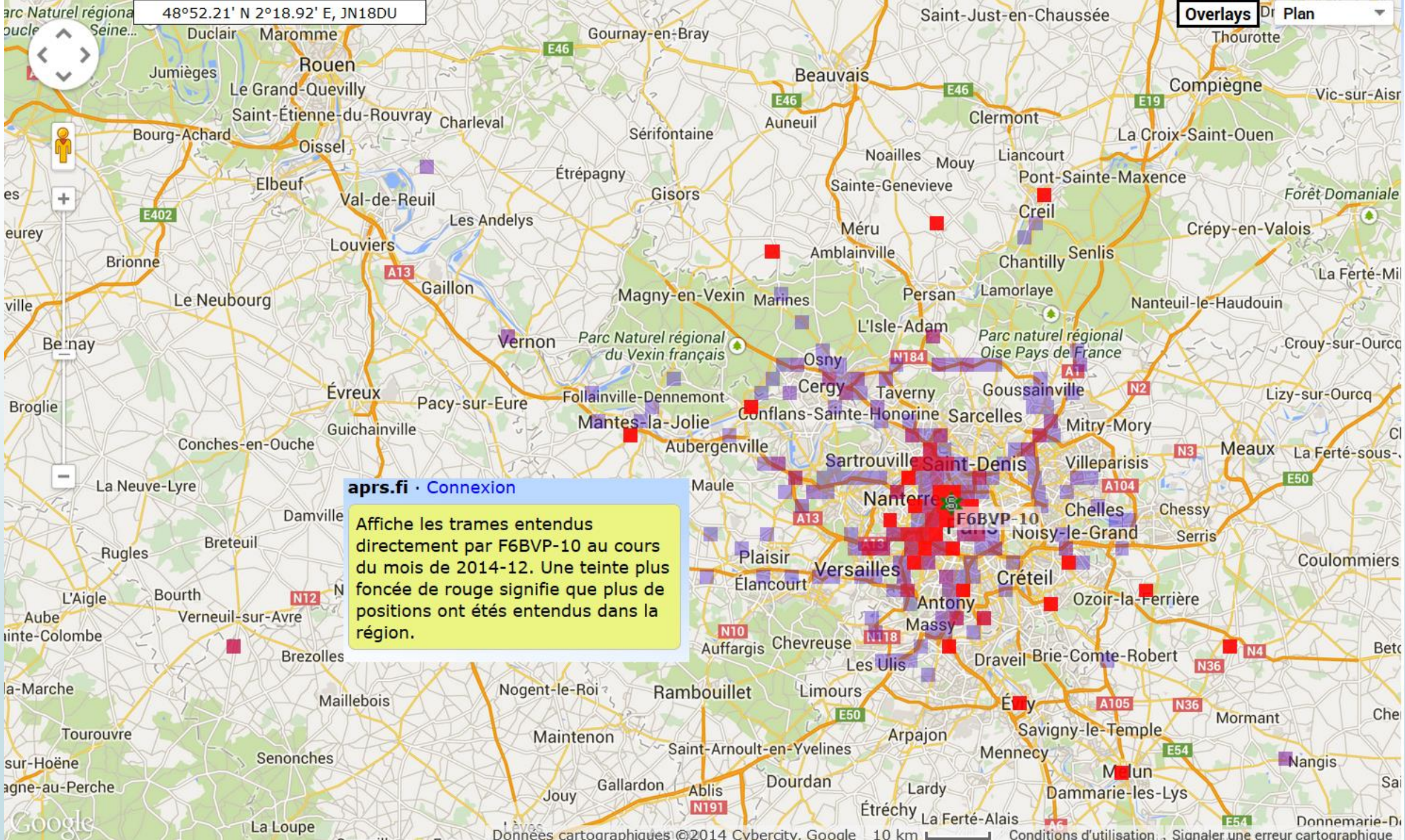
48°52.21' N 2°18.92' E, JN18DU

Overlays Dr Plan



**aprs.fi · Connexion**

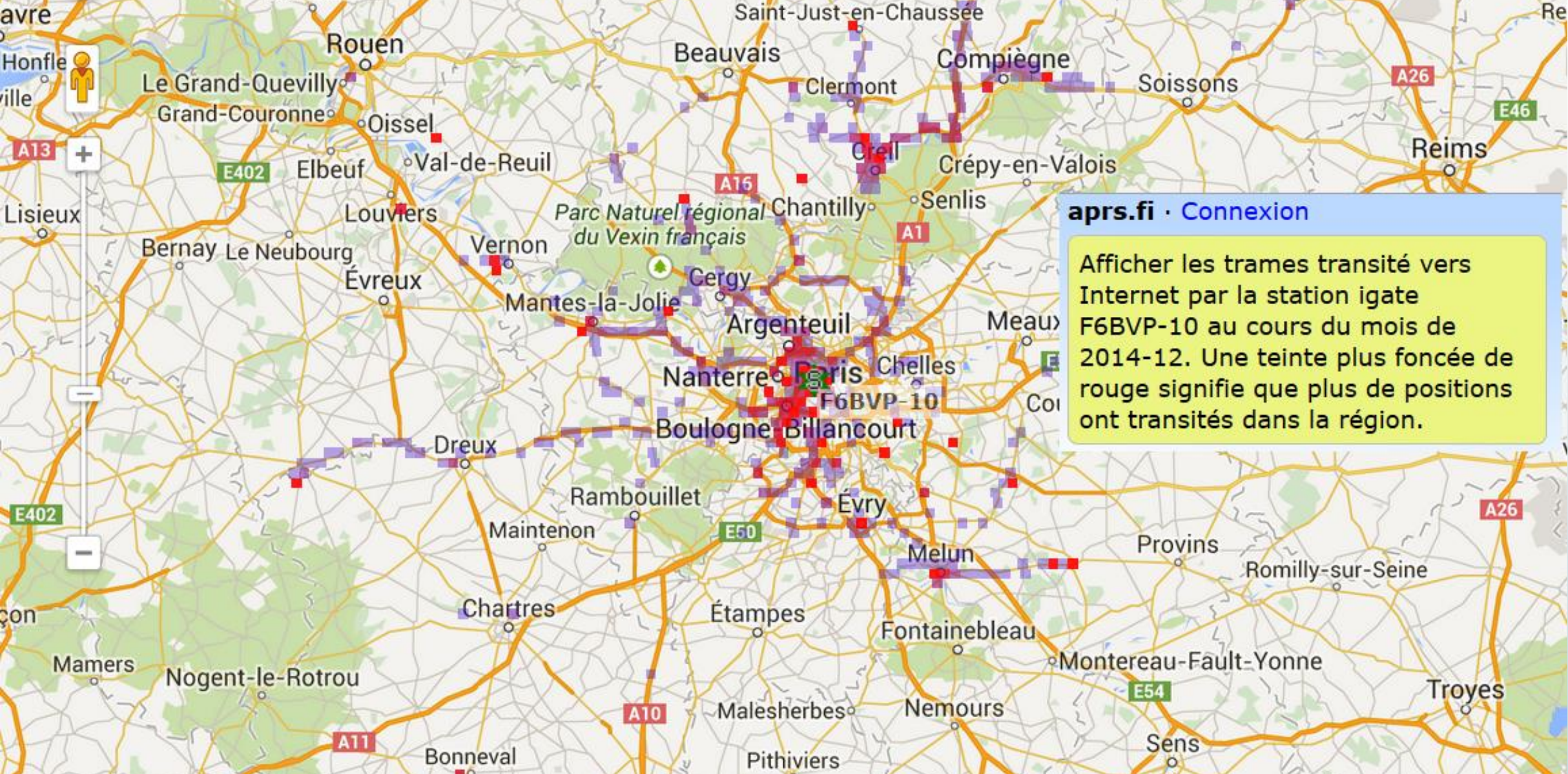
Affiche les trames entendus directement par F6BVP-10 au cours du mois de 2014-12. Une teinte plus foncée de rouge signifie que plus de positions ont été entendus dans la région.



48°54.27' N 2°16.12' E, JN18DV

Overlays

Plan



**aprs.fi · Connexion**  
Afficher les trames transité vers Internet par la station igate F6BVP-10 au cours du mois de 2014-12. Une teinte plus foncée de rouge signifie que plus de positions ont transités dans la région.





# Mumble

Low-latency, high quality voice chat for gamers

Brought to you by: [dd0t](#), [kissaki](#), [mkrautz](#), [natenom](#), and 2 others

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sf

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mumble-1.2.8.msi

Tweet < 46

+1 194

J'aime < 93




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## Description

Mumble is an open source, low-latency, high quality voice chat software primarily intended for use while gaming. It includes game linking, so voice from other players comes from the direction of their characters, and has echo cancellation so the sound from your loudspeakers won't be audible to other players.

Serveur  
Vocal par  
Internet  
OU HAMNET


 Ajouter le serveur ? ✕

Nom

Adresse

Port

Nom d'utilisateur

 Ajouter le serveur ? ✕

Nom

Adresse

Port

Nom d'utilisateur

# Raspberry Pi camera board video streaming

<https://miguelmota.com/blog/raspberry-pi-camera-board-video-streaming/>

```
# Install dev version of libjpeg
```

```
sudo apt-get install libjpeg62-dev
```

```
# Install cmake
```

```
sudo apt-get install cmake
```

```
# Download mjpg-streamer with raspicam plugin
```

```
git clone https://github.com/jacksonliam/mjpg-streamer.git ~/mjpg-streamer
```

```
# Change directory
```

```
~/mjpg-streamer/mjpg-streamer-experimental
```

```
# Compile make clean all
```

# Serveurs vocal - AX.25 - BBS - Nodal FPAC - video

## F6BVP Raspberry Packet Radio AX.25

### BBS - ROSE / FPAC Node - VoIP - webcam servers

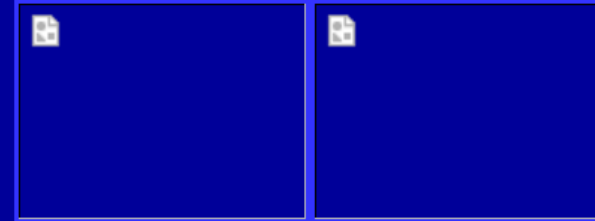


### APRS I-Gate - répéteur APRS



Vidéos de caméras  
Raspberry Pi diffusées  
sur le réseau radio haut  
débit multimedia HAMNET

Raspberry Pi cameras  
streaming on HAMNET  
high speed multimedia radio network



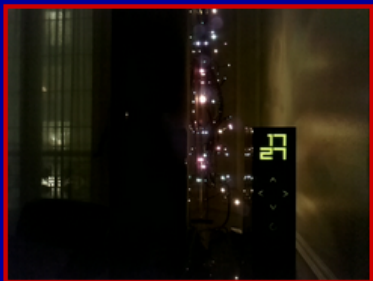
This site is dedicated to WORLI, AmateurRadio packet pioneer  
Ce site est dédié à Hank WORLI, RadioAmateur pionnier de la radio par paquet

- **Cliquer sur ce lien pour lire le MINI MODE D'EMPLOI qui explique comment télécharger, copier l'image du système Linux sur carte mémoire SD 8Go et personnaliser votre serveur BBS F6FBB, Nodal FPAC routeur de paquets AX.25 Raspberry Pi**

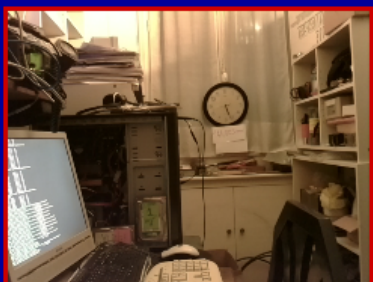
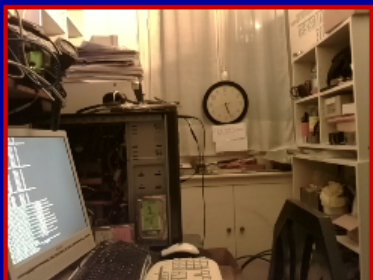
- **Click on this link to read a MINI HOWTO explaining how to download, copy Linux image file on an SD memory card and customize your Raspberry Pi F6FBB BBS, FPAC node AX.25 packet router**

Liens utiles :

Useful links :



**Vue fixe - Snapshot  
-->INTERNET**



**Video (3-20  
images/sec)**

- Si vous apercevez Bernard F6BVP sur la vidéo n'hésitez pas m'envoyer un **courriel (f6bvp@free.fr)** ou à me contacter via mon **serveur VoIP (Mumble)** ou à m'appeler sur 144.825 MHz si vous êtes à moins de 60 Km de Paris.

- If you see Bernard F6BVP on the video do not hesitate to send me an **e-mail to f6vp@free.fr** or contact me via my **VoIP server (Mumble)**.

**Liens vers adresses utiles**

(HOWTO vidéo streaming - VoIP server - HAMNET)

**Toward usefull links**

**No HAMNET  
access**

**Vue fixe -->HAMNET<--  
Snapshot**

**No HAMNET  
access**

**No HAMNET  
access**

**Video streaming-->HAMNET**

Ce script initialise l'adresse IP secondaire de l'interface Ethernet eth0 du Raspberry.

Le nom du fichier est /etc/network/if-up.d/route44

Il doit posséder les droit d'exécution : **sudo chmod +x route44**

192.168.0.254 est l'adresse sur réseau local de mon routeur de la FreeBox Internet.

L'adresse primaire de l'interface (192.168.0.nnn) est attribuée par le DHCP de la FreeBox.

44.168.19.17 est l'adresse du routeur HAMNET connecté à l'antenne WiFi.

L'adresse réseau HAMNET du Raspberry Pi est 44.168.19.19

```
#!/bin/sh
```

```
/sbin/ifconfig eth0:1 44.168.19.19 netmask 255.255.255.240
```

```
/sbin/route add -net 44.0.0.0/8 gw 44.168.19.17
```

# Serveurs vocal - AX.25 - BBS - Nodal FPAC - video

## F6BVP Raspberry Packet Radio AX.25

### BBS - ROSE / FPAC Node - VoIP - webcam servers



Vidéos de caméras  
Raspberry Pi diffusées  
sur le réseau radio  
haut débit multimedia  
HAMNET



Raspberry Pi cameras  
streaming on HAMNET  
high speed multimedia radio network



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- **Click on this link to read a MINI HOWTO explaining how to download, copy Linux image file on an SD memory card and customize your Raspberry Pi F6FBB BBS, FPAC node AX.25 packet router**

#### Liens utiles :

- <http://www.raspberrypi.org/faqs>
- <http://www.raspberrypi.org/phpBB3/viewforum.php?f=65>
- Où acheter votre RPi ? <http://fr.farnell.com/?CMP=ffp-sm-flag-fr>  
<http://fr.rs-online.com/web/generalDisplay.html?id=raspberrypi>
- **Le TNC-Pi de John Hansen W2FS** (TNC-X pour Raspberry Pi) Kit (\$40)
- Magazine MagPi en français : <http://www.themagpi.com/fr/>
- **Pour les débutants** : <http://www.tropfacile.net/doku.php>

#### Useful links :

- <http://www.raspberrypi.org/>
- <http://www.raspberrypi.org/faqs>
- Where to buy ? Check on Internet Farnell, RS-online or any other source
- **John Hansen W2FS TNC-Pi** (TNC-X for Raspberry Pi) Kit (\$40)
- MagPi magazine <http://www.themagpi.com/>

## F6BVP Raspberry Pi applications

VoIP conference voix - Video streaming  
APRS I-gate - Répéteur APRS

**Liaison - INTERNET  
- link**

<http://f6bvp.org/>

**Répéteur  
APRS**

<http://f6bvp.org/>



**Liaison - HAMNET  
radio - link**

(High speed Amateur radio  
Multi-media Network)

<http://44.168.19.18/>

via HAMNET WiFi radio links

**APRS I-gate**

<http://44.168.19.19/>



Raspberry Pi  
raspi camera

**F8KHQ Radio Club  
Clamart**



Raspberry Pi - TNC-Pi - AX.25 1200 bauds



F6BVP 5675 MHz WiFi  
antenna

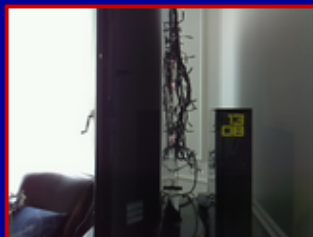
<--HAMNET--12Km-->

**F8KHQ Radio Club Clamart**



F8KHQ Radio Club Clamart

Camera RPi  
-->INTERNET



- Si vous apercevez Bernard F6BVP sur la vidéo n'hésitez pas m'envoyer un **courriel (f6bvp@free.fr)** ou à me contacter via mon **serveur VoIP (Mumble)** ou à m'appeler sur 144.825 MHz si vous êtes à moins de 60 Km de Paris.

RPi camera video-> HAMNET

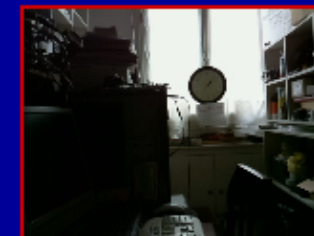


Vue fixe - Snapshot  
-->INTERNET



- If you see Bernard F6BVP on the video do not hesitate to send me an **e-mail to f6vp@free.fr** or contact me via my **VoIP server (Mumble)**.

Vue fixe -->HAMNET<--  
Snapshot

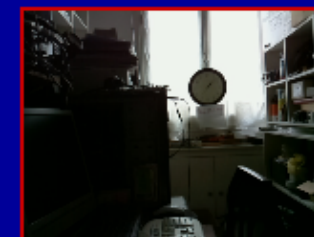


Video (3-20  
images/sec)

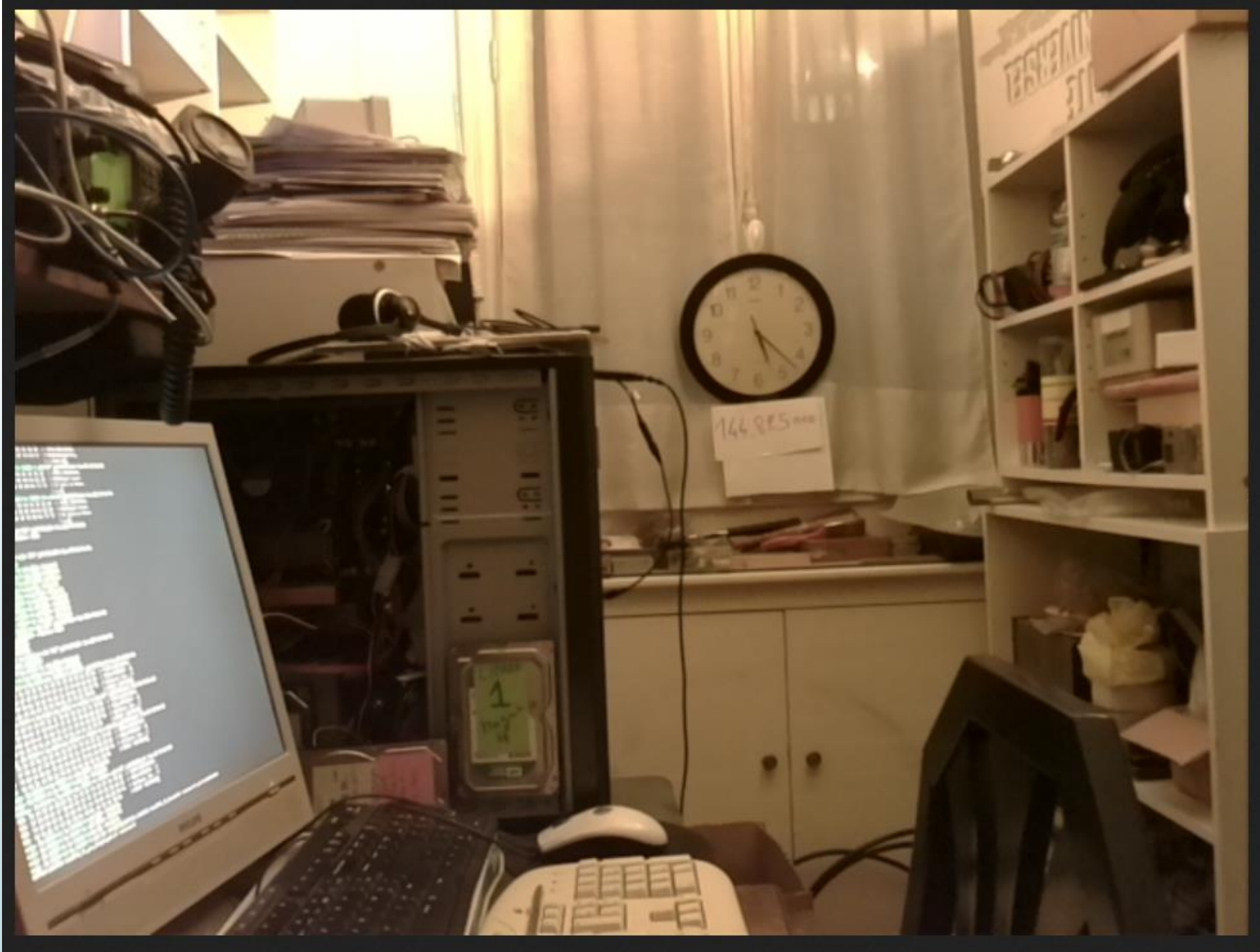
Liens vers adresses utiles

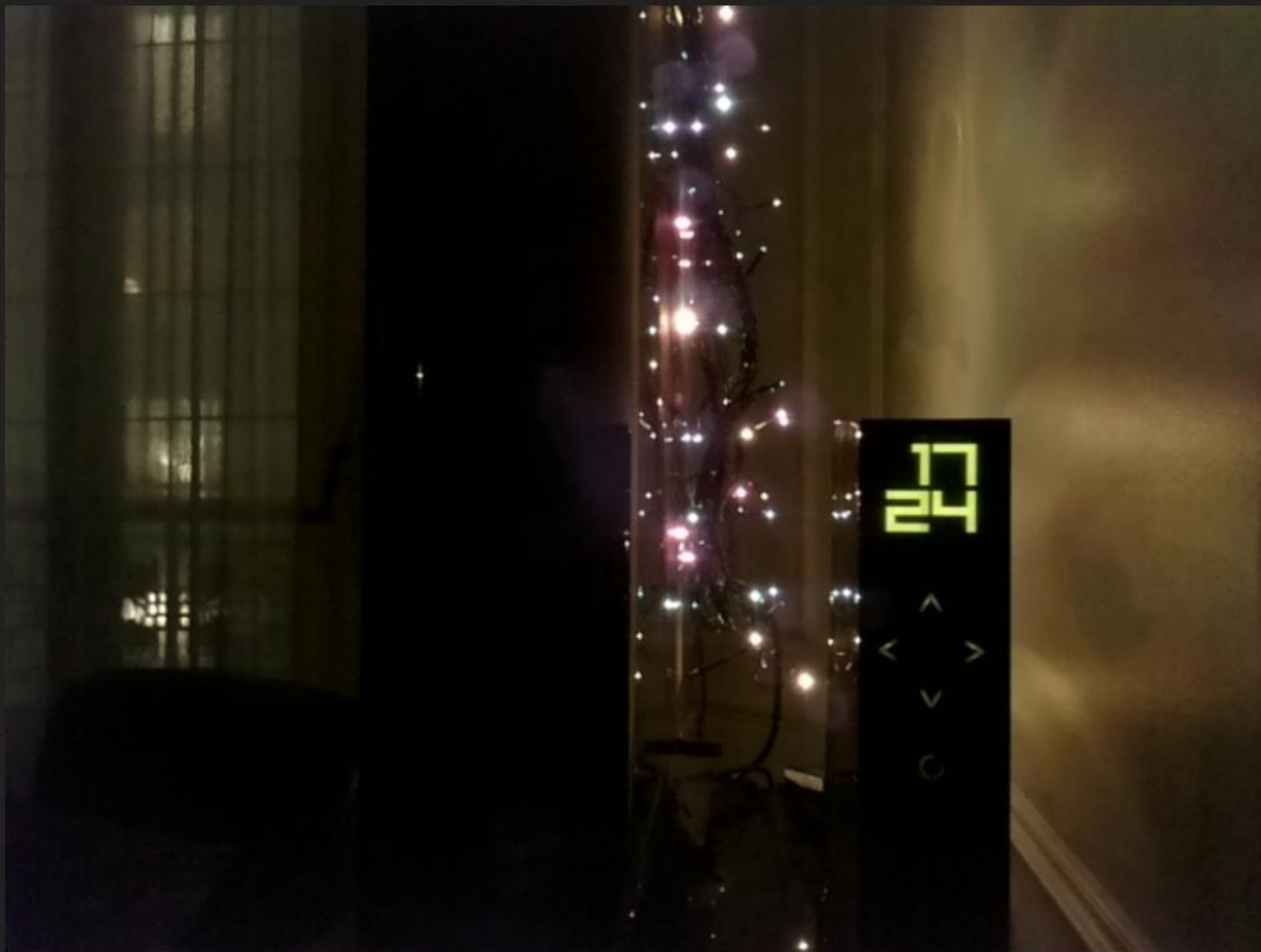
(HOWTO vidéo streaming - VoIP server - HAMNET)

Toward usefull links



Video streaming-->HAMNET

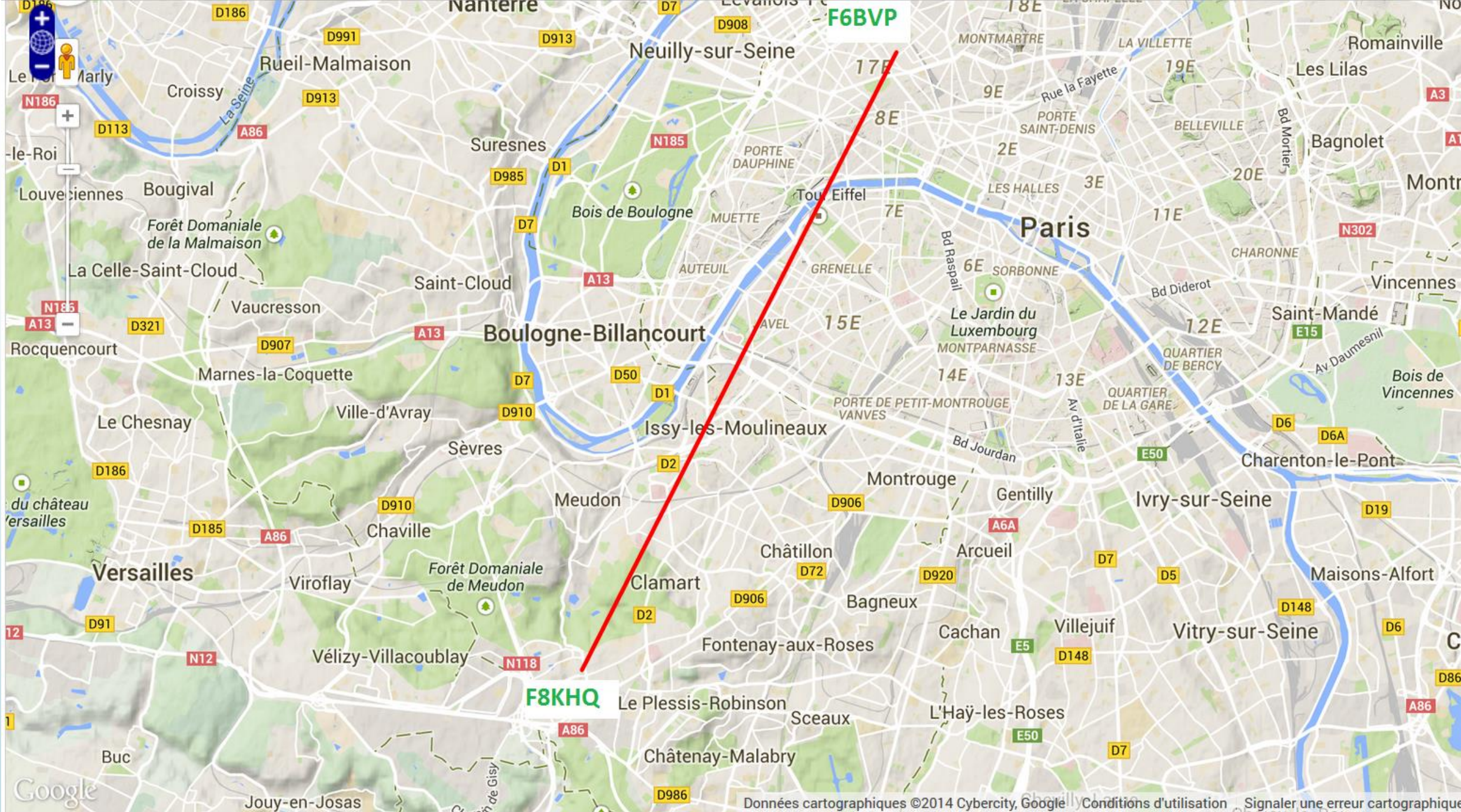




Transfert des données depuis f6bvp.org...



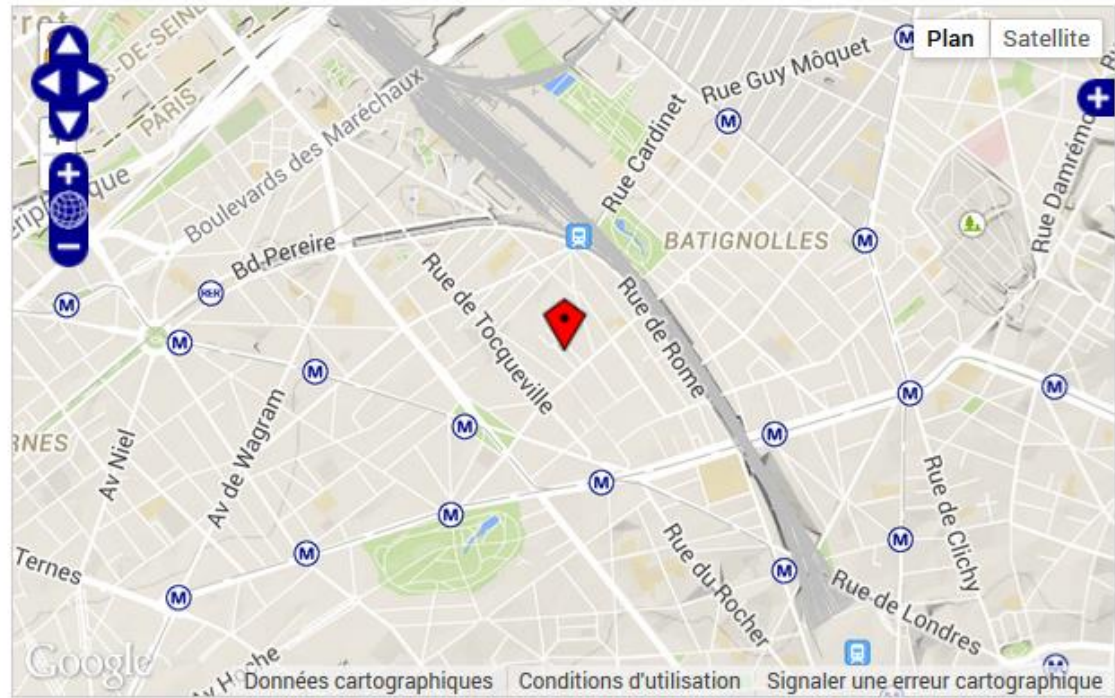




Länge der Linkstrecke: 12.33 km



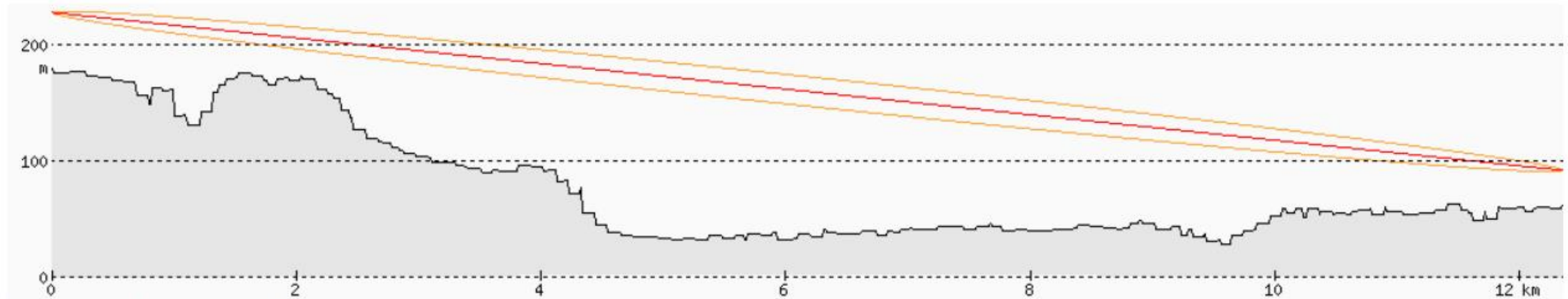
Anfangspunkt der Linkstrecke    Antenne: 48 m über Grund  
 Richtung: 26.98° (auf Norden bezogen)



Endpunkt der Linkstrecke    Antenne: 30 m über Grund  
 Richtung: 206.98° (auf Norden bezogen)

### Ergebnis

Das zu erwartende Höhenprofil der Linkstrecke



Sowie der Verlauf der Strecke



HAMNET Réseau  
radioamateur  
multimédia haute vitesse





**AS64745 - France-IDF**Maintainer: **f6cnb**

Paris area.

<http://44.168.12.11>

Sites:

Callsign	M	Name	Maintainer	User access	Comment
<a href="#">f1dwo</a>		Henri, Epernon 28	f6cnb	Local WiFi	Mikrotik router RH433 - 2 NanoBe..
<a href="#">f1faq</a>		Christian, Palaiseau 91	f6cnb	Local WiFi	F1FAQ, Christian, Palaiseau, 91
<a href="#">f1lqd</a>		Jacky, Beynes 78	f6cnb	Local WiFi	Beynes, 78
<a href="#">f1zgo</a>		ADRASEC 91 Montlhery	f6cnb		Adrasec 91, DMR repeater, HAMNET ..
<a href="#">f5hnk</a>		Patrick, Dampierre 78	f6cnb	Local WiFi	Dampierre, 78
<a href="#">f5ktr</a>		Radio Club GRAC Paris 75	f6cnb	2362MHz,BW=5..	Radio club du Groupe des Radio Am..
<a href="#">f6bvp</a>		Bernard, Paris 75	f6cnb	Local WiFi	F6BVP servers: - <a href="http://44.168.19..">http://44.168.19..</a>
<a href="#">f6cnb</a>		Remi, Bures-sur-Yvette 91	f6cnb	2362MHz,BW=5..	Servers, gateway and user access...
<a href="#">f6cnbw5</a>		Remi Frelsburg Texas	f6cnb	Local WiFi	W5/F6CNB in Texas
<a href="#">f6fhv</a>		Henri, Verrieres-le-Bui..	f6cnb	Local WiFi	Henri, f6fhv, Verrieres le buisso..
<a href="#">f6ini</a>		Jacques Meudon 92	f6cnb	Local WiFi	f6ini Jacques 92 Meudon
<a href="#">f6iqf</a>		Christian, Rambouillet 78	f6cnb	None	Rambouillet, Christian
<a href="#">f6kbs</a>		Radio Club CEA Saclay 91	f6cnb	2362MHz,BW=5..	Radio club du CEA Saclay
<a href="#">f6kfv</a>		Radio Club Versailles 78	f6cnb	Local Wifi	Radio Club de Versailles 78
<a href="#">f6kkr</a>		Radio Club Rambouillet 78	f6cnb	2362MHz,BW=5..	Radio Club de Rambouillet
<a href="#">f8khq</a>		Radio Club Clamart 92	f6cnb	5675MHz,BW=1..	Radio Club de Clamart , 92 Sud Ou..

16 entries.

# HAMNET IDF

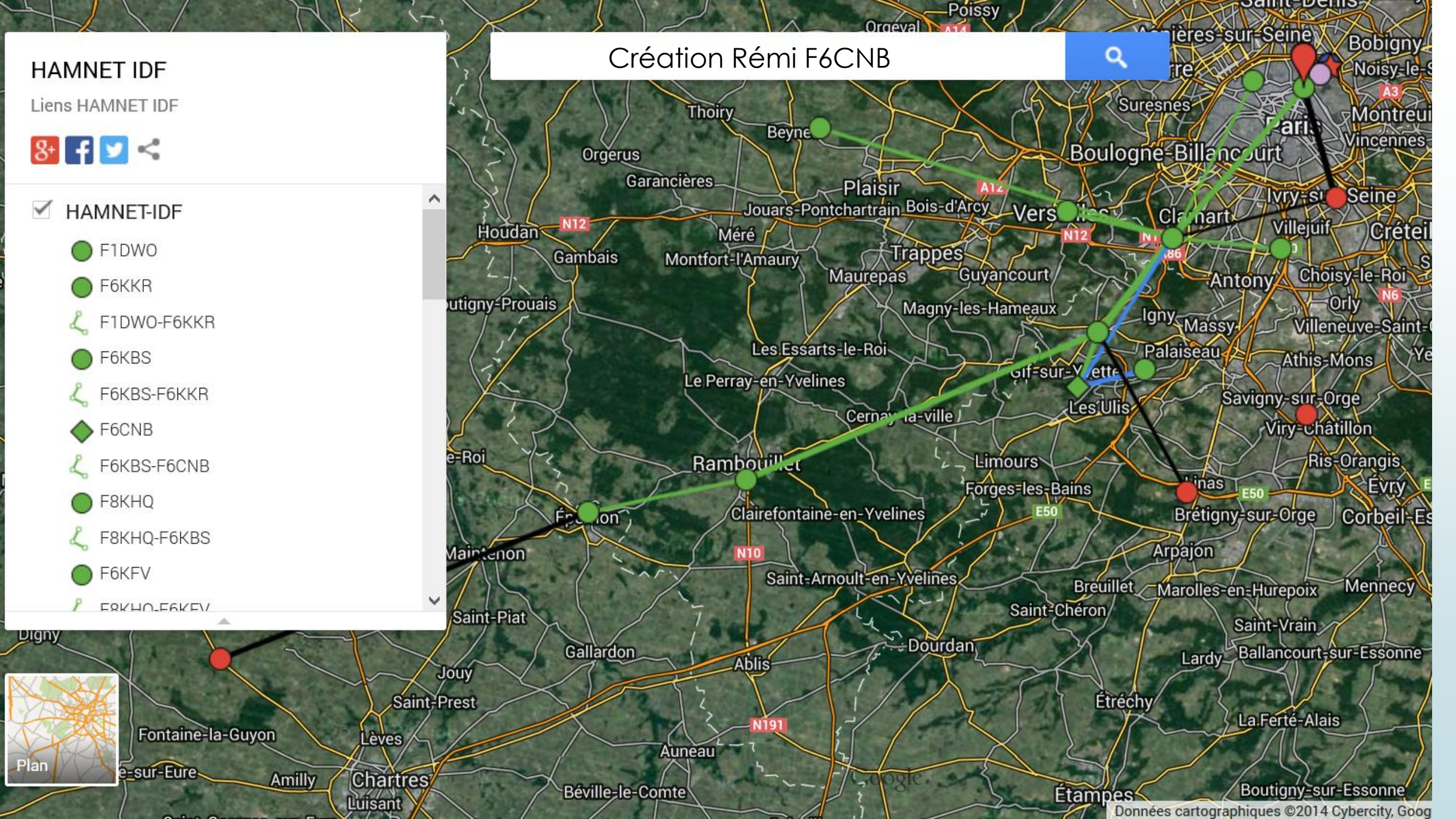
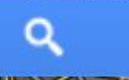
Liens HAMNET IDF



## HAMNET-IDF

- F1DWO
- F6KKR
- 📍 F1DWO-F6KKR
- F6KBS
- 📍 F6KBS-F6KKR
- ◆ F6CNB
- 📍 F6KBS-F6CNB
- F8KHQ
- 📍 F8KHQ-F6KBS
- F6KFB
- 📍 F8KHQ-F6KFB

## Création Rémi F6CNB





# AMSAT-DL

D 4019F

## JOURNAL

Nr. 2 Jg. 41  
Juni 2014

Offizielles Magazin der AMSAT-Deutschland e.V.  
– Satelliten für Kommunikation, Wissenschaft und Bildung –

IN DIESEM HEFT:

**Detektion der ISEE-3/ICE-Raumsonde durch AMSAT-DL**



Es hailSat-2 mit zwei „Phase4“-Transpondern

**Ein Selbstbau-Sputniksender**

**Countdown-Fehler bei KickSat**

**ZAcube/Tshepiso-Sat fotografiert Südafrika**



Das erste Space-Segment des FUNCUBE-Projekts



GO Mars with AMSAT-DL's P5A-Mission





**DB0IUZ**

**Sternwarte Bochum  
JO31OK**

**Son 14.12.2014  
10:51:59 UTC**

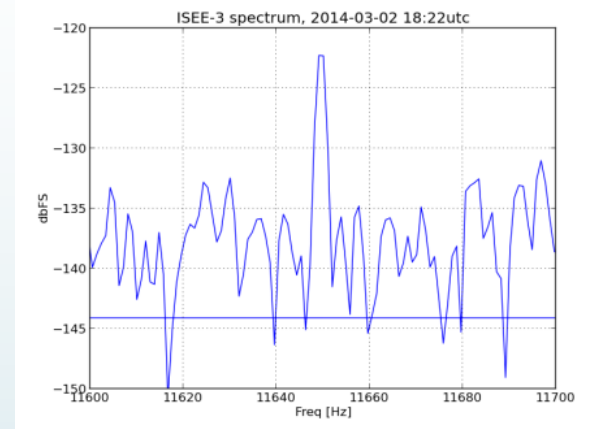
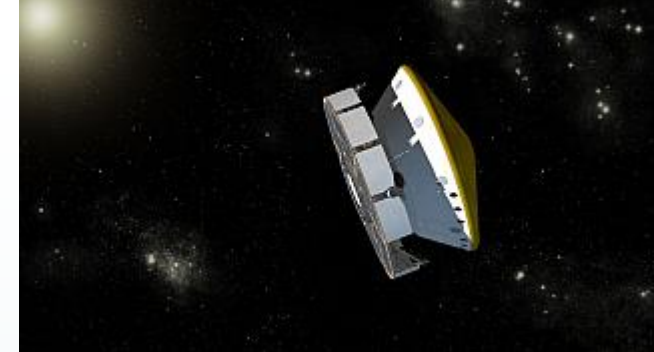


For reception of MSL **James Miller G3RUH** remotely reconfigured the Bochum tracking and receiving system. The MSL X-Band telemetry signal was received automatically in Bochum, no-one had to be physically on-site. This shows how flexible and reliable the system at Bochum is, ready for the planned AMSAT-DL P5-A mission to Mars.

The 20m dish at Bochum is also used by AMSAT-DL to automatically receive real-time solar data from the NASA STEREO A / B satellites. The data is transmitted to a NOAA server in the USA via the Internet.



<http://amsat-uk.org/2011/12/02/radio-amateurs-receive-mars-science-laboratory/>



ISEE-3 ICE spacecraft signal spectrum recorded on March 2, 2014 at 1822 UT using the 20m dish antenna of Bochum Observatory, Germany. Range 43M km, azimuth 230°, elevation 49°. Average of 2 spectra spanning 2.1 seconds. With a bin bandwidth of 1.6 Hz, the SNR of 15.8 dB equates to a CNR of 17.8 dB. Indicated frequency is relative to the programmed center frequency of 2217.5 MHz of the measurement equipment.



# Cité des sciences et de l'industrie







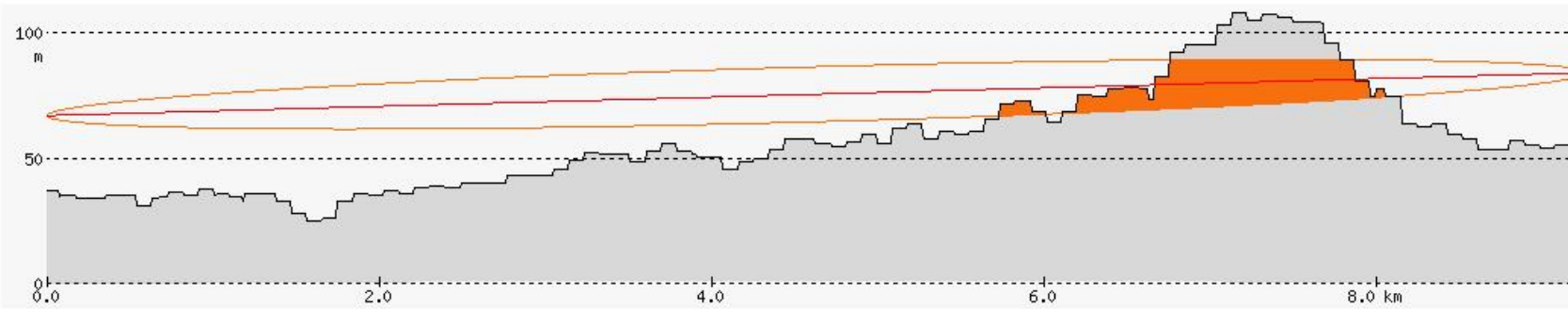








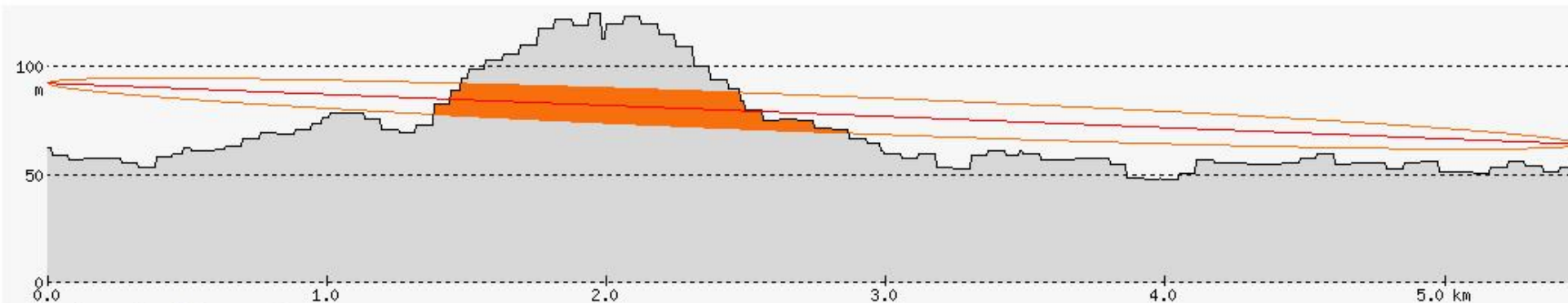
Das zu erwartende Höhenprofil der Linkstrecke



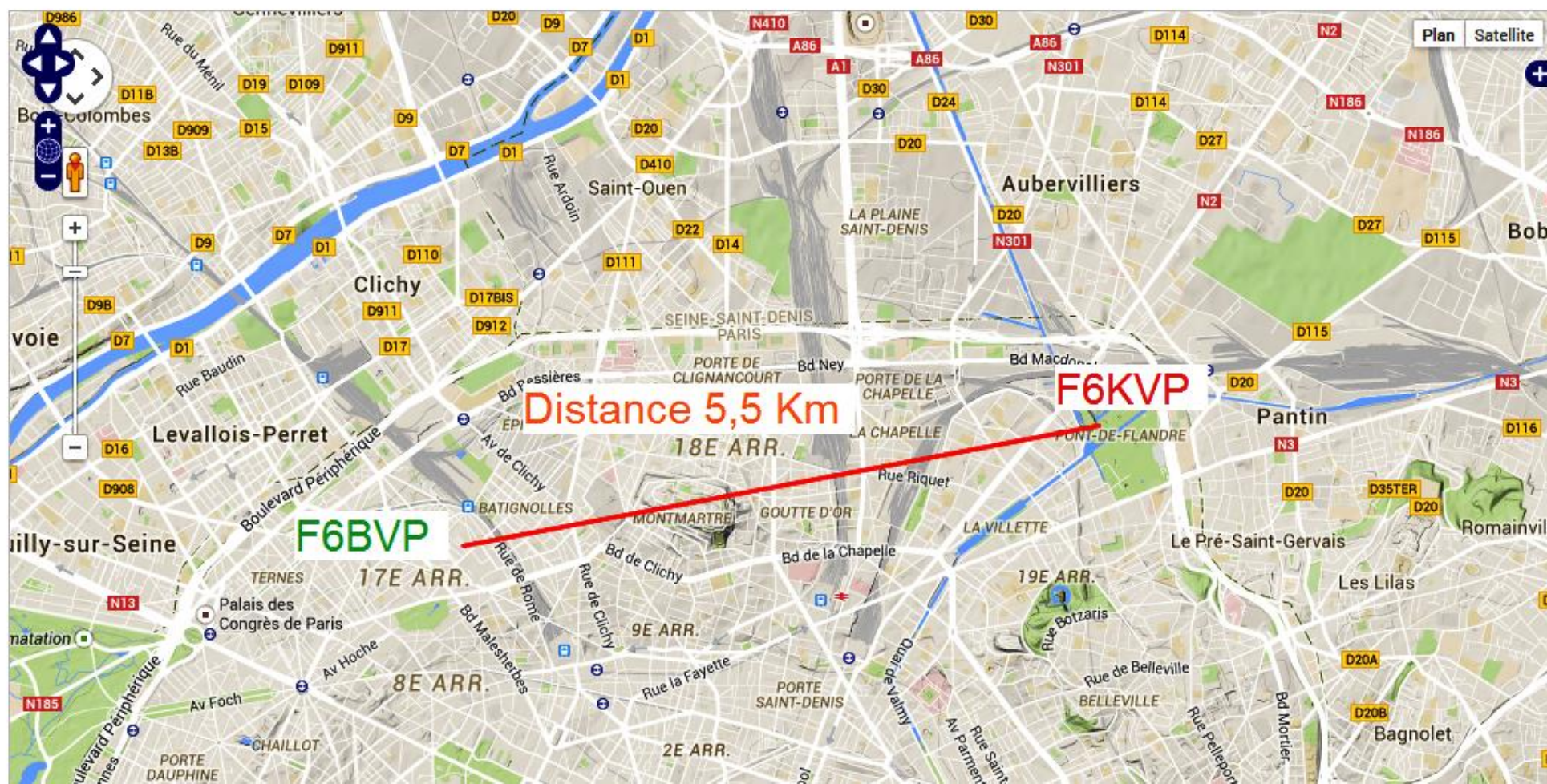
Sowie der Verlauf der Strecke

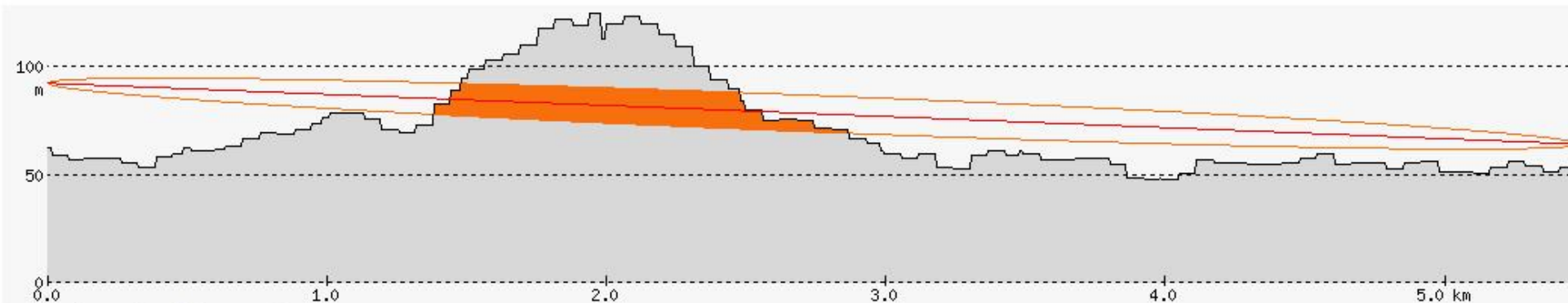




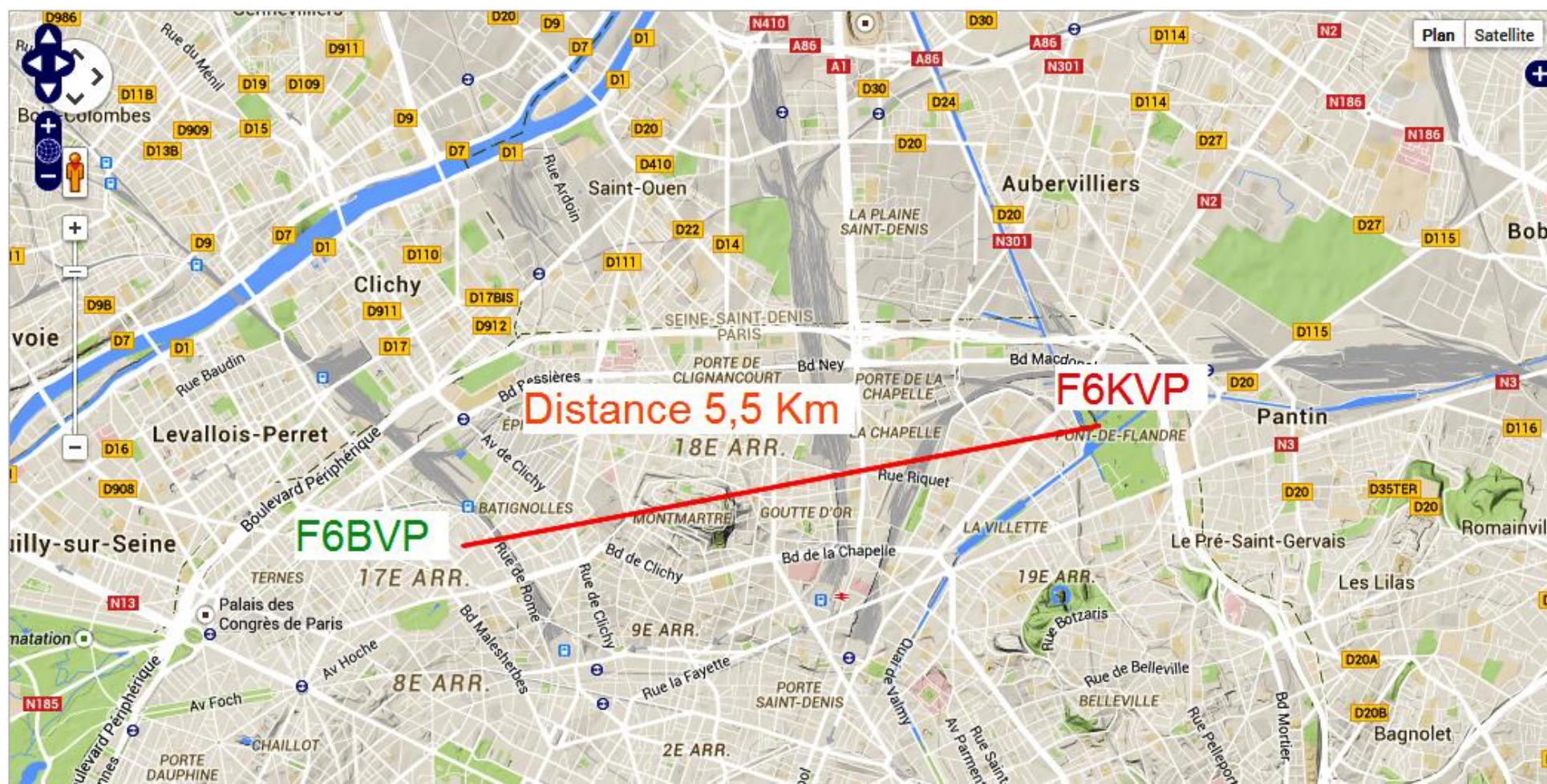


Sowie der Verlauf der Strecke

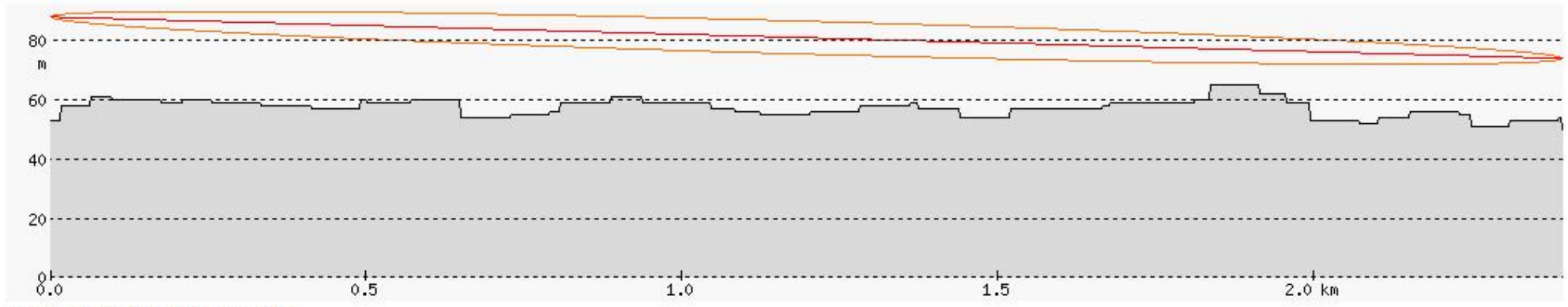




Sowie der Verlauf der Strecke



# Das zu erwartende Höhenprofil der Linkstrecke



Sowie der Verlauf der Strecke





F5KTR

F6KVP

Distance 2,4 Km

300 m  
1000 ft

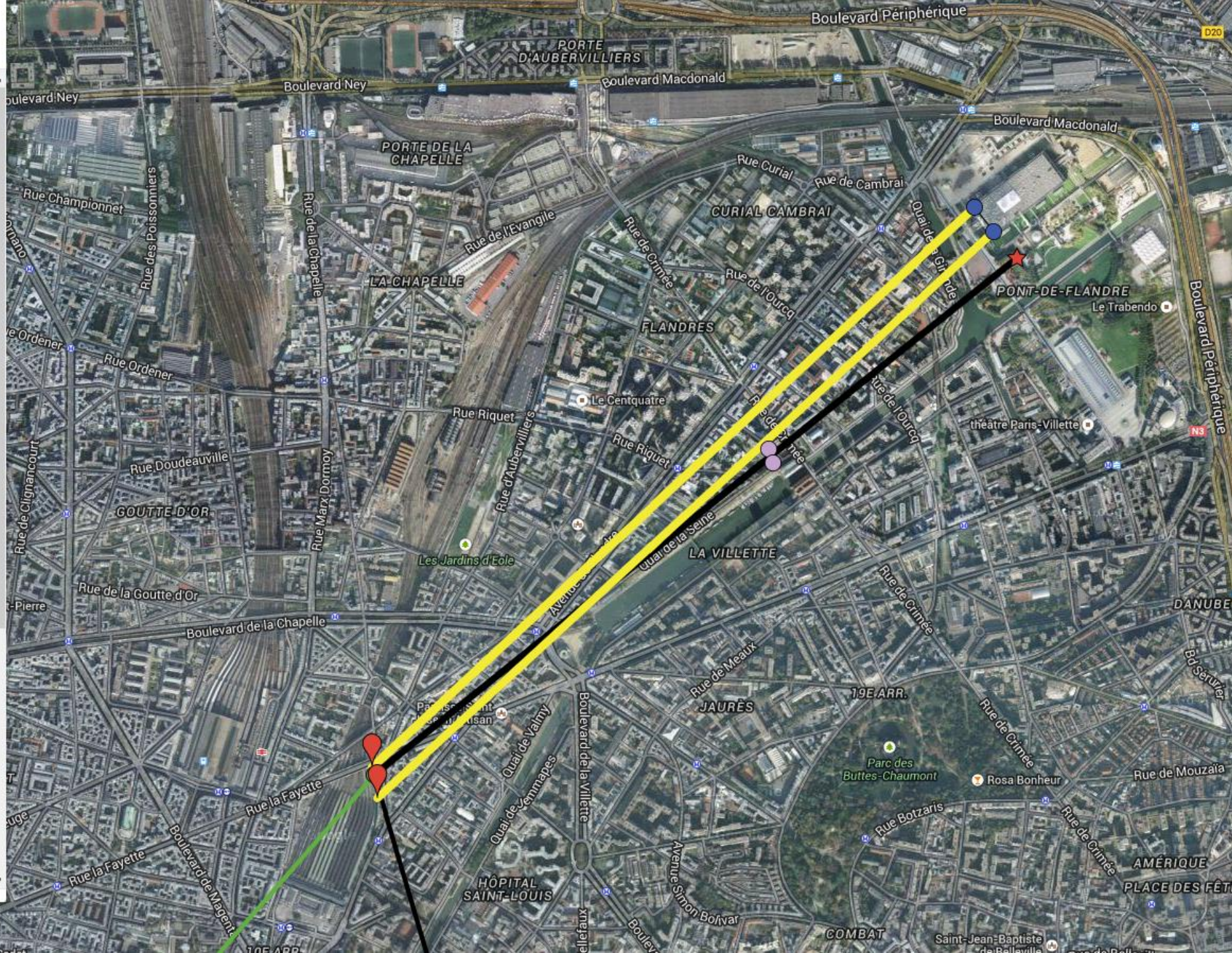
48.89373, 2.38717

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HAMNET-IDF

- F1DWO
- F6KKR
- ↪ F1DWO-F6KKR
- F6KBS
- ↪ F6KBS-F6KKR
- ◆ F6CNB
- ↪ F6KBS-F6CNB
- F8KHQ
- ↪ F8KHQ-F6KBS
- F6KRV
- ↪ F8KHQ-F6KRV
- F5KTR
- ↪ F8KHQ-F5KTR
- ↪ F6CNB-F8KHQ
- RelayChartres?
- ↪ Line 20
- F6BVP
- ↪ F8KHQ-F6BVP
- F1LQD
- ↪ F8KHQ-F1LQD
- F6GAL
- ↪ F8KHQ-F6GAL
- F1FAQ
- ↪ F6CNB-F1FAQ
- F1ZGO
- ↪ Line 26
- F6KEE
- ★ Cite de la science
- ↪ F5KTR-Parabole
- F6KAW



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73 de  
Bernard  
F6BVP

