Remote Amateur Radio Over the Internet

Bruce Elbert

K6ZB

(k6zb@arrl.net)

Operate HF from your Hotel or Condo

Remote site needs:

- Windows laptop (Mac?)
- Decent Internet connection (WiFi or Ethernet)
- Speaker or headphones (USB preferred)
- Microphone (for SSB)
- CW – use laptop keyboard

The Base (Home) Station

Simple – gets you on the air
- K2 (or other radio with CAT)
- Basic fixed antenna (dipole or vertical)
- PC running Ham Radio Deluxe
- Sound card interface (Rigblaster +)
- Interface cable

More capable – QRO and all bands
- IC 756 PRO 3 and PW1 amp
- Screwdriver with controller
- PC running TRX Manager
- SingaLink USB
- Interface unit and cables

Screwdrivers

- Predator (N9JMX)
- High Sierra 1800
- Hi-Q
- Scorpion

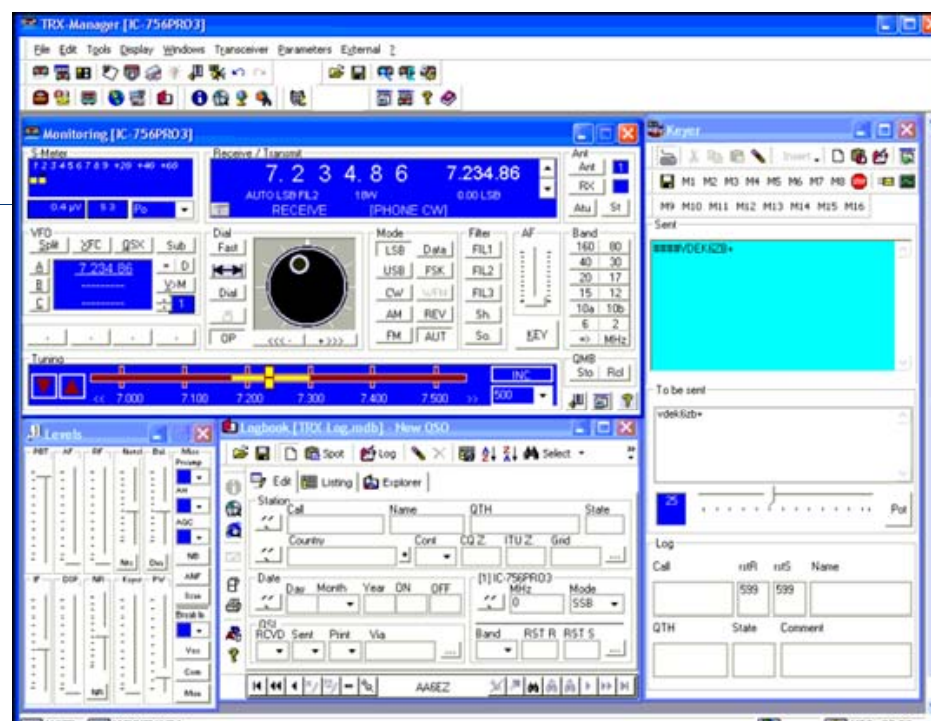These screwdrivers are BIG and can take a full 1.5 kW.

Operation on 80 through 15 meters.

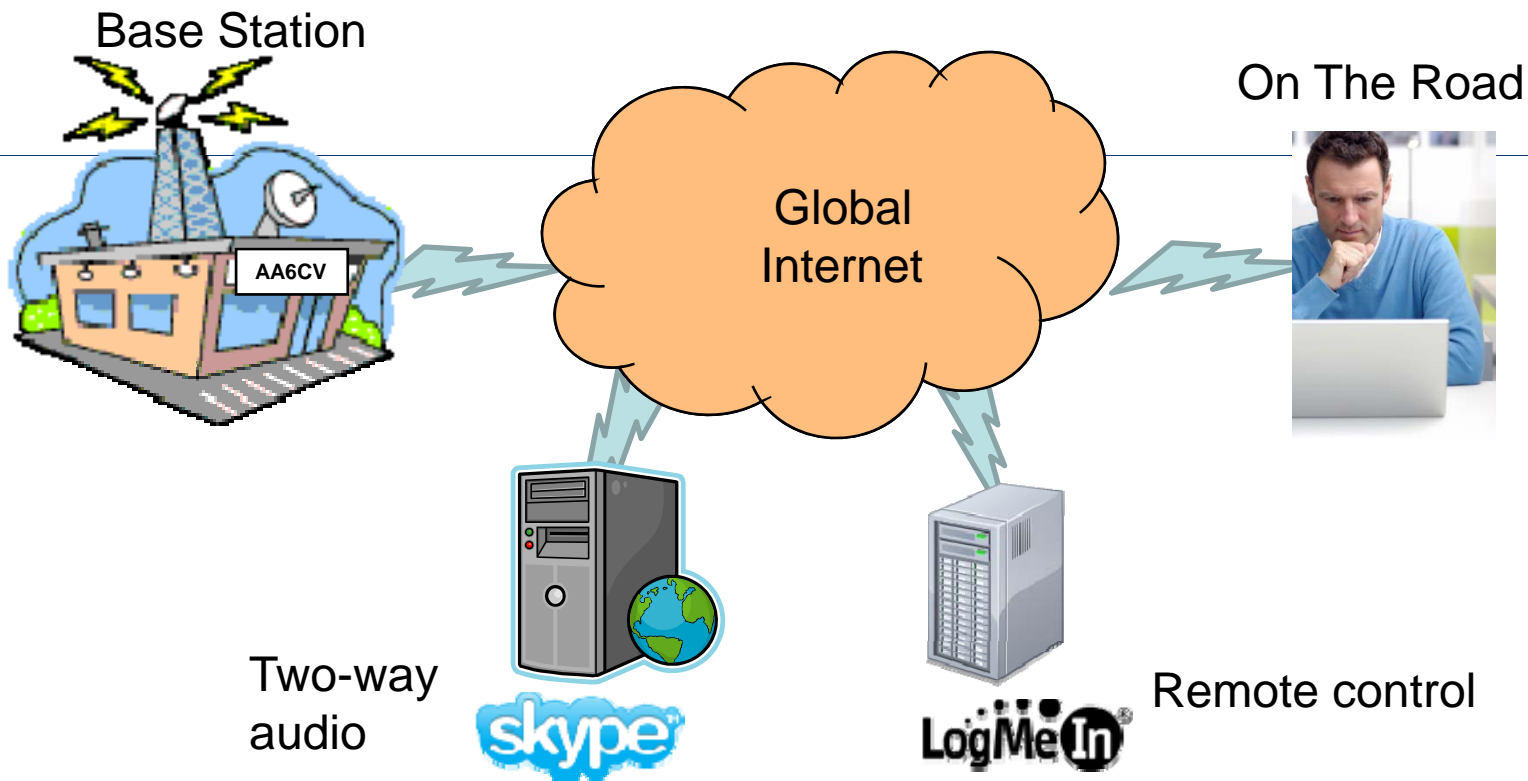They are remotely controllable using devices by MFJ (Ameritron).
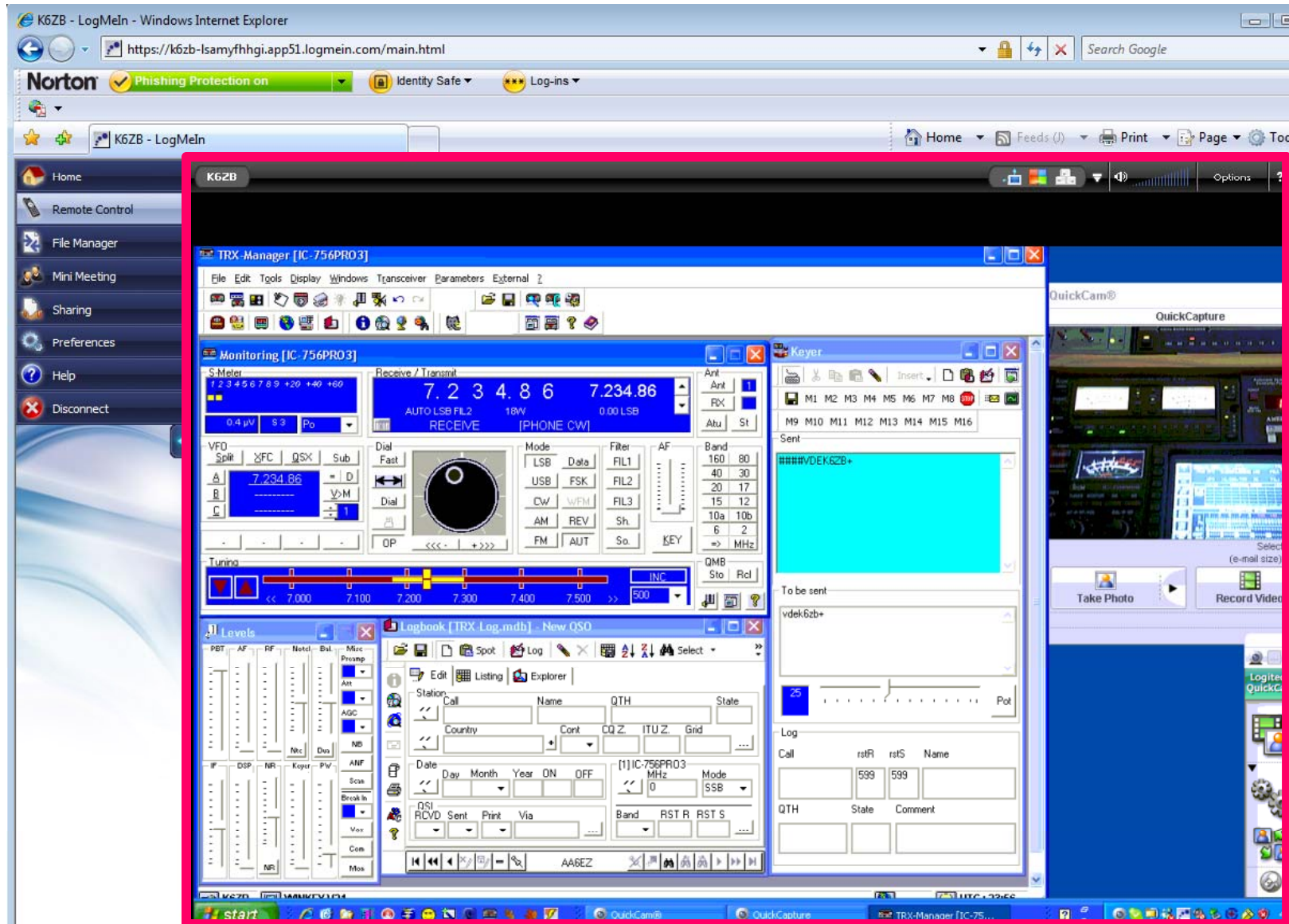
Control your Rig from your Computer (CAT)

- **Modern radio CAT features**
  - Read the current frequency
  - Change bands and modes
  - Change various settings
  - Operate using your PC

- **Common uses:**
  - Automated logging of QSOs
  - Digital modes
  - Contesting
  - Remote control

Basic Connections

Base Station

On The Road

AA6CV

Global
Internet

Two-way
audio

skype

Remote control

LogMe In
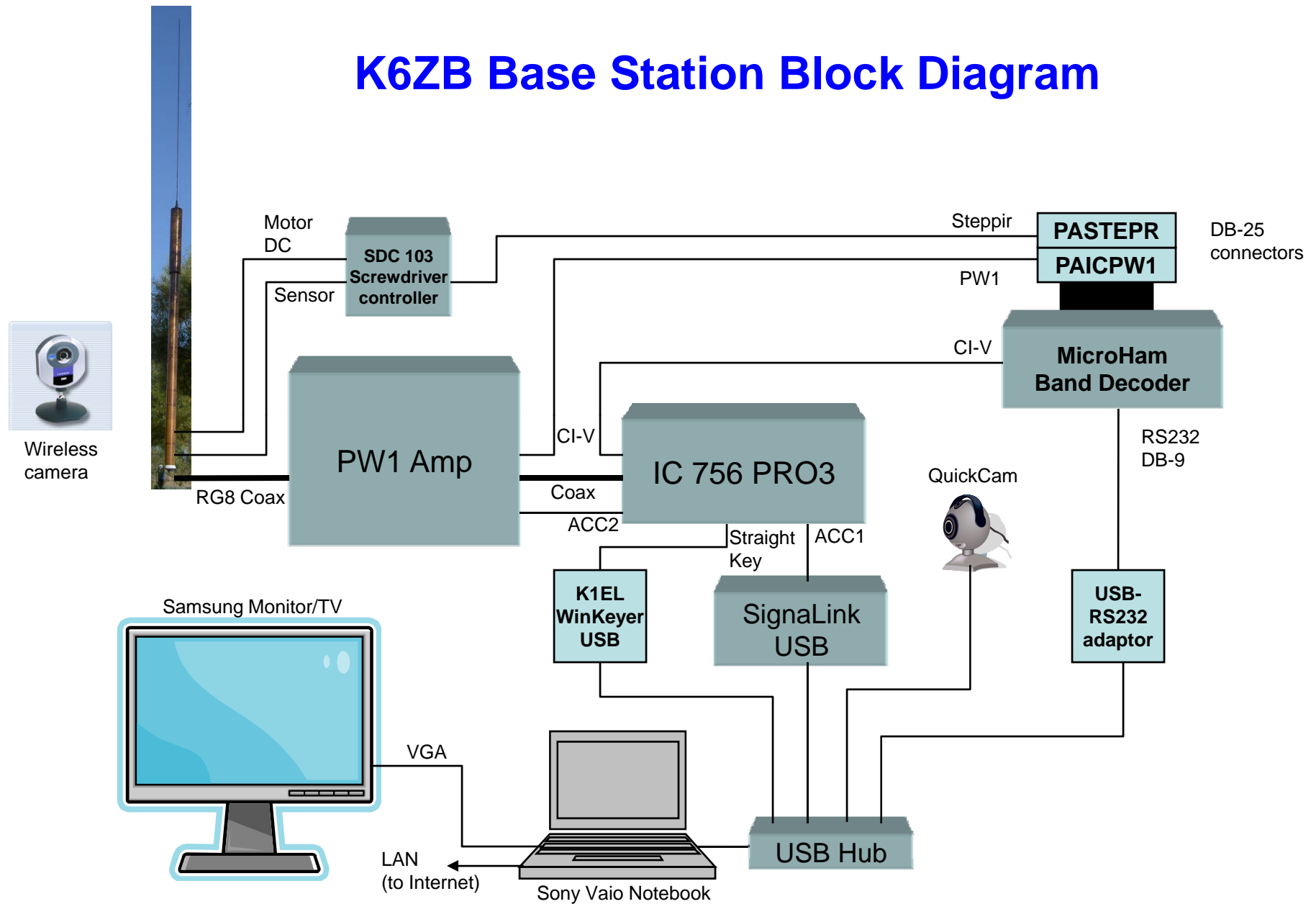
Desktop using LogMeIn.com

Setting This Up

- Your radio must be CAT enabled
- Connect it to your PC
- Get rig control software working
- Develop a sound card interface
- Register and use LogMeIn.com
- Register and use Skype
- Test and try

K6ZB Base Station Block Diagram

Wireless camera

Motor DC

Sensor

SDC 103 Screwdriver controller

Steppir

PASTEPR

PAICPW1

PW1

DB-25 connectors

CI-V

MicroHam Band Decoder

PW1 Amp

CI-V

RG8 Coax

IC 756 PRO3

Coax

ACC2

RS232 DB-9

Straight Key

ACC1

QuickCam

Samsung Monitor/TV

K1EL WinKeyer USB

SignaLink USB

USB-RS232 adaptor

VGA

LAN (to Internet)

Sony Vaio Notebook

USB Hub

Remote Control Demo