The TWSTFT Lab report

Li Huan xin    Zhang Hong

National Time Service Center, the Chinese Academy of Sciences
19th Meeting of the CCTF Working Group on TWSTFT 12-13 September 2011NMIJ, Tsukuba, Japan.
National Time Service Center, the Chinese Academy of Sciences (NTSC)

NTSC is located in Lintong, Xi’an where is the geographic center of China.
Welcome to China and welcome to NTSC.
Research Group: **Time keeping laboratory**

- TWSTFT group is a part of **Time keeping laboratory**
- **Members:**
  - Dong Shaowu, Research Prof. the Head of Time keeping laboratory
    - sdong@ntsc.ac.cn
  - Li Huanxin, Research Prof. In charge of TWSTFT in NTSC
    - lhx@ntsc.ac.cn
  - Zhang Hong, Assistant Research Prof. In charge of data processes for TWSTFT
    - zhong@ntsc.ac.cn
  - Song Huijie, Assistant for TWSTFT
NTSC 01 Asia-Asia TWSTFT links equipment

Antenna: 1.8 meters
satellite: IS-8, stop uplink on March 31, 2011.
Change to GE-23, but GE-23 can not cover NTSC,
Now NTSC 01 stopped work
frequencies: Ku-band
modem: NICT modem

In future, we hope to join Asia-Asia TWSTFT links again
NTSC 02 Asia–Europe TWSTFT links equipment

- **Antenna**: 2.4 meters
- **Satellite AM2, finished AM2 UAT on 12 Nov., 2010**
- **Now, it works regularly**
- **TimeTech SATRE modem with 3 channels**
- **Up and Down converter : Comtech Company**
- **Links with PTB, and Asia stations, time-sharing every hour**
In NTSC 02, we have changed the band-pass filter with LNA, the old one interdicted
the down frequency of AM2, only can pass IS4 or IS8 (it is normal standard
specification for Chinese antenna) the
new one can pass down frequency of AM2.
The Time difference between UTC(PTB) and UTC(Lab(i)) by TWSTFT via AM2
NTSC 03  Link

• Chinese satellite
• only for domestic with C band
• Improving antenna to automatic tracking, In order to adapt small angle satellite
Thank you

• National Time Service Center, the Chinese Academy of Sciences
  Li Huanxin  lhx@ntsc.ac.cn
  Zhang Hong  zhong@ntsc.ac.cn