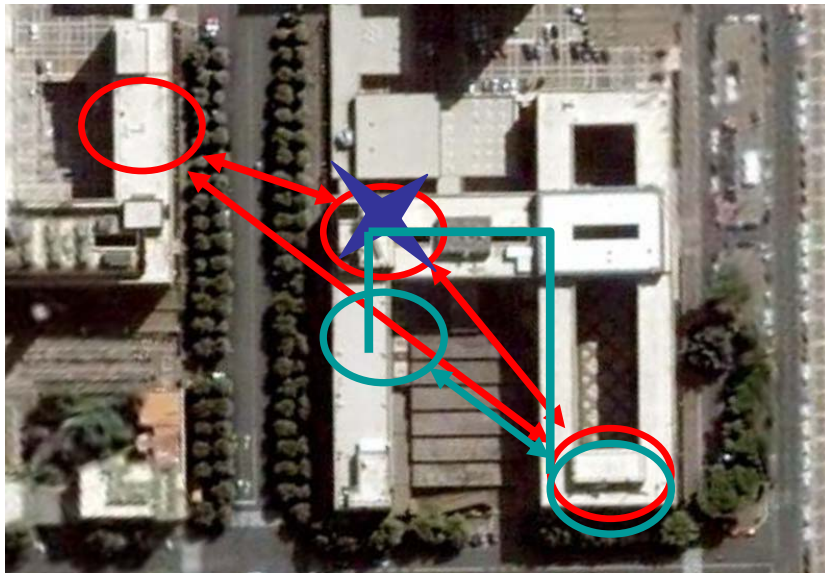


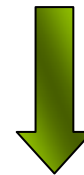
Il ponte ottico ISCOM



Poligono sperimentale ISCOM:

**2 postazioni Ministero delle Comunicazioni
1 postazione Edificio delle Poste Italiane**

Link a radio frequenze



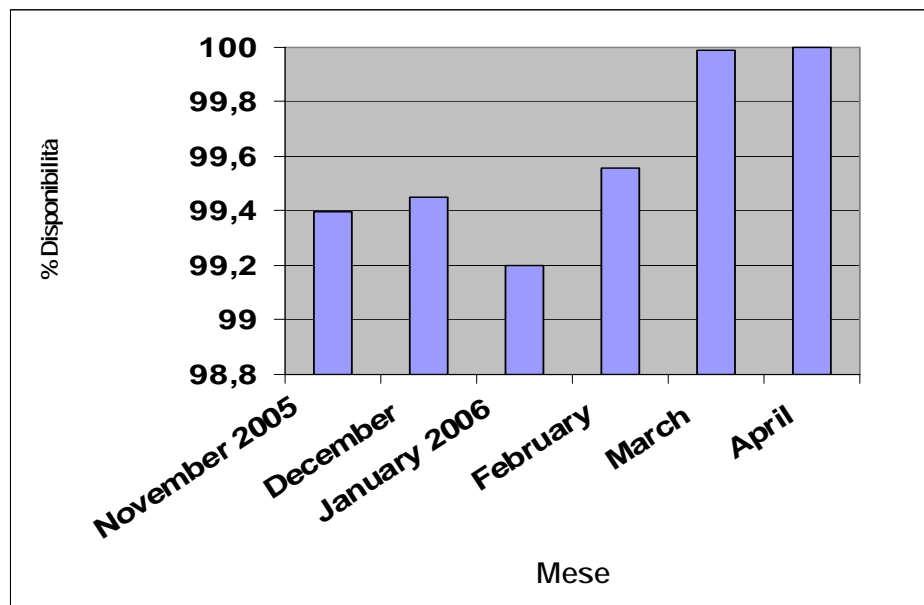
MONITORAGGIO DEL CANALE OTTICO:

Un sistema di acquisizione preleva tensioni dai sensori posti sulle teste ottiche e le trasmette al laboratorio tramite un ponte radio

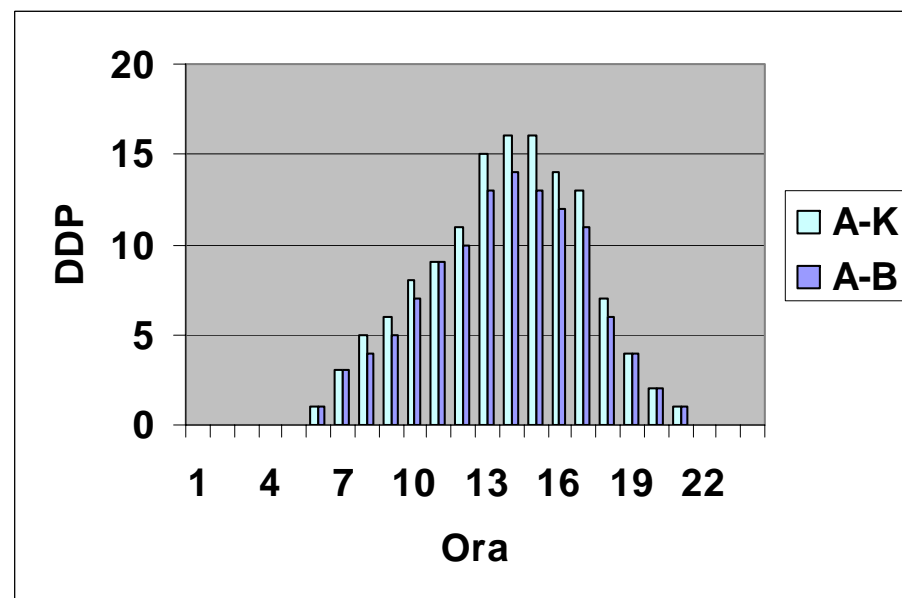
Stazione meteo posta anch'essa sul tetto per correlazione meteo-canale





Alcuni risultati

Disponibilità



Qualità del servizio



-  Primi mesi: disponibilità limitata a causa del vento
-  Marzo/Aprile - modifica del supporto
-  Ore diurne a maggiore probabilità d'errore
-  Nessun errore durante la notte

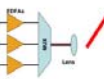
Il Nuovo Test Bed

Applicazioni WDM in 3° finestra



Dense Wavelength Division Multiplexed Transparent for Ultra High Bit Rate Applications and Single Channel Opaque Free Space Optics

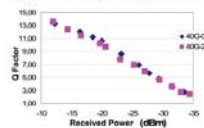
FSO Test Bed
Italian Communication Ministry Roof



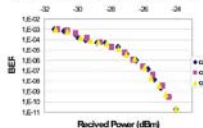
FSO Lab Experiment



40 Gbit/s Q Factor:
with and without interferent

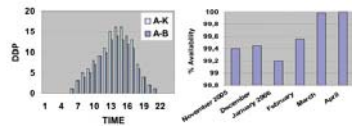


2.5 Gbit/s BER:
with and without interferent



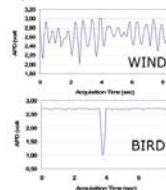
First Months:

- 1) Availability Limited by the wind
- 2) Higher error probability during the day
- 3) No errors during the night



Link Attenuation:
1) around 2dB short link
2) around 5 dB extended link

Faced Problems:
1) Wind
2) Birds
3) Scintillation



CONTACTS:

ISCOM, Italian Communication Ministry, Viale America 201, 00144 Rome, Italy,
giorgio.tosibaleffi@comunicazioni.it
University Roma Tre, Via della Vasca Navale 84, 00146 Rome, Italy,
cincotti@uniroma3.it
Instituto de Telecomunicações, Universidade de Aveiro, 3810-193 Aveiro, Portugal,
teborra@isac.pt
University Tor Vergata, Viale del Politecnico 1, 00100 Rome, Italy,
forin@ing.uniroma2.it



Fig 5: on field experience. Particular of the Fiber to Free Space Optic lens, view from the transmitter site and from the receiver site and particular of the mirror

Eliminare il collo di bottiglia dell'elettronica può aumentare a dismisura la banda abbassando le spese di manutenzione