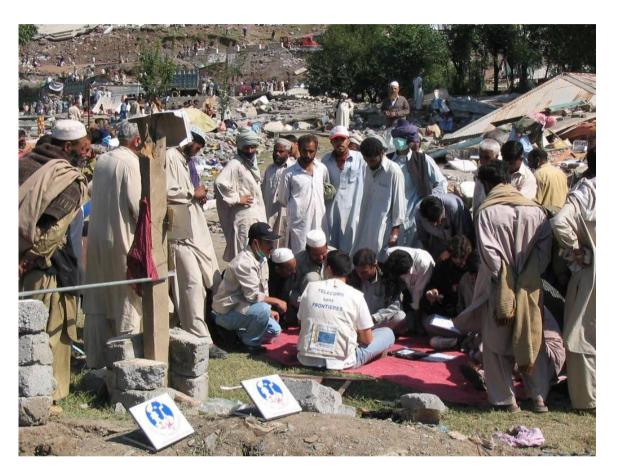
# TÉLÉCOMS SANS FRONTIÈRES

# Pakistan Earthquake

# 10th October 2005 - 11th November 2005

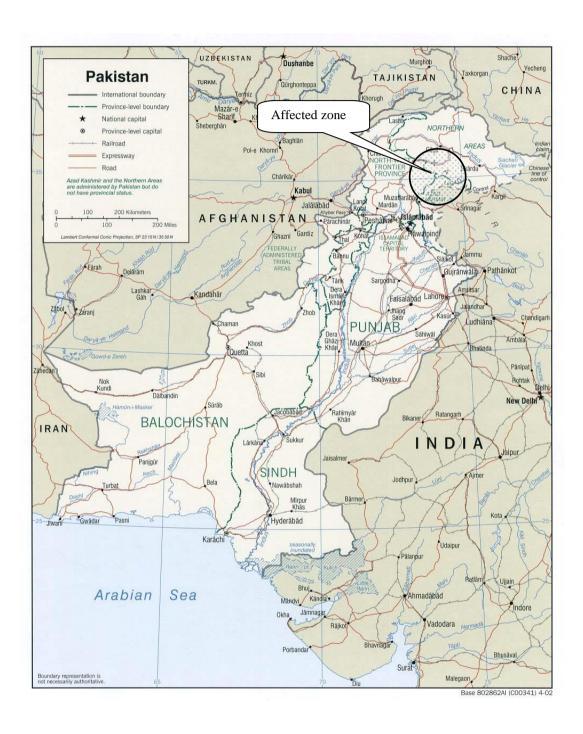




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# 1. Evaluation of the catastrophe

## 1.1 Initial situation and analysis



On October 8<sup>th</sup> 2005 at 3.50 am GMT, Pakistan, Afghanistan and India were rocked by an earthquake registering 7.6 on the Richter scale according to the American Geological Institute (USGS) and the National Network for Earthquake Surveillance in Strasbourg (RENASS). Earthquakes comparable to the one on October 8<sup>th</sup> have been recorded throughout the Himalayan chain of mountains. For example, in 1905 approximately 500 kms South East of Hazara (the Kangra earthquake, 7.8-8 magnitude, around 20,000 victims); 1934 East Nepal, magnitude 8.1, around 10,000 victims. The main regions affected are North Western India, eastern Afghanistan and above all North Pakistan.

### <u>Afghanistan</u>

The tremor was felt in the capital Kabul and in several villages in the east and north-east. However, in the middle of the day, the Ministry of the Interior estimated that damage had not extended into the countryside. A civil servant in Jalalabad, in the east of the country, only indicated that at least two children had been killed and several houses destroyed.

#### India

The earthquake had been felt strongly in India. Thousands of terrified inhabitants had fled their homes. The citizens of New Delhi had panicked following the tremor and were out in the streets.

The majority of the damage was in Indian Kashmir, near to the « Control Border » separating India and Pakistani Kashmir.

#### Pakistan

Telephone lines were cut or overloaded, isolating certain areas. The most serious news came from the mountainous areas to the north of the country, difficult to reach. Villages destroyed, houses razed to the ground and dozens of victims were reported by the few local police officers who could be contacted. The GSM telephone network was apparently intact (the masts were not damaged) but completely inoperable, impossible to make one telephone call. Normally, the GSM cover extended to the valleys but could not pass over the mountains.

Electricity cables were cut and most of the roads along the valley floors had been blocked by land slides.

The two regions of Pakistan most affected were Azad Jammu and Kashmir (AJK) and the North West Frontier Province (NWFP). The amount of damage in Pakistan was reported from the first as being huge, this despite the lack of back-up information.

In Pakistan, an urgent response was needed. The telephone links had been cut in the affected area and land structures were badly damaged. The first report made clear the need for a telecommunications service for rescue organisations and for the stricken population.

Concerning India and Afghanistan, the other countries affected by the earthquake but less seriously, they made no appeal for international aid.

#### 1.2 Situation on the ground

On October 10 2005, the day that TSF teams arrived at Muzaffarabad around 30,000 dead and 40,000 injured had been counted in the region of NWFP. In the AJK region, 44,000 dead were reported as well as 82,000 injured.

- Muzaffarabad (10/10/05)

In Muzaffarabad (population 60,000) the damage was significant (70%) and although numerous buildings seemed intact, they were uninhabitable.

The victims gathered in several camps created by local authorities and by the Army. There were sometimes hundreds of families who flocked, for example, to the University of Muzaffarabad.

In terms of the infrastructure, the Muzaffarabad region only had a few roads but all had been affected. The Pakistan Army undertook to open them. Thus, the road from Islamabad to Muzaffarabad was opened rapidly and on Monday October 10<sup>th</sup>, it took four hours to reach the capital of Kashmir from Islamabad. The electricity network was totally destroyed.

On the telecommunications level, it is interesting to note that the infrastructure in Muzaffarabad and nearby villages (within a radius of 5 kms) was relatively good, notably thanks to Chinese investments. The heart of the telecommunications structure was the SCO office (a military establishment which provided telecom services to individuals). The building housing the SCO telecommunications equipment and that of other operators had not been destroyed, and the telecom equipment was therefore undamaged. Thanks to generators, this equipment became operational very quickly.





Manshera Muzaffarabad road

Some affected areas are only accessible by foot

Of the two GSM operators (Paktel and Mobilink) only the Mobilink operator seemed to be functioning but the signal was intermittent and remained unreliable. As for the landline infrastructures, they were totally destroyed.

A humanitarian telephone operation in the region of Muzaffarabad was judged to be indispensable for the stricken population. Thanks to this action, the victims could contact relatives, receive psychological support and personalized aid. These operations were initially estimated to last for two to three weeks. From the first hours of its presence, a telecoms centre proved to be indispensable for the UNDAC and rescue teams.

## - Balakot (11/10/05)

In Balakot (25,000 inhabitants, 4000 dead), the town was 95% destroyed and the situation there was chaotic.

The victims built temporary shelters and were living amongst the ruins of the town in deplorable conditions.

The road network was re-established with the main road linking Manshera to Kaghan. Access to Balakot was available on October 11<sup>th</sup> 2005, but the road was completely saturated, around three hours of delays. In addition, its condition is fragile, the repeated blockages causing collapses taking sometimes half a day to clear. The electricity network is completely destroyed.

The communications networks are cut. The network of switches is destroyed. As far as the GSM network is concerned, only Mobilink is operational but again totally saturated.



Balakot, a town erased from the map

- A humanitarian telephone operation was a priority to reinitiate links between the victims and their families. At least three weeks are needed to cover the town and its valley. Since the roads are impassable, operations are carried out on foot. The establishment of a telecoms centre will be useful from the arrival of international aid on site.
  - Batgram, Battal (12/10/05)

At Batgram, October 12<sup>th</sup> 2005, the damage is less extensive (20% destroyed) than the two previous towns, the telephone network (mobile and fixed) is semi-operational. On the other hand, the region of Battal (half way between Manshera and Batgram) has been badly damaged (70% destroyed), the landline network there is destroyed and the mobile network saturated. Significant damage was reported to us in the Alai valley; however this is inaccessible by road. TSF estimated that a humanitarian telephone operation must be launched in the regions of Battal and Takot once they are accessible. Given the few NGO organisations on site, the establishment of a telecoms centre is therefore not necessary.

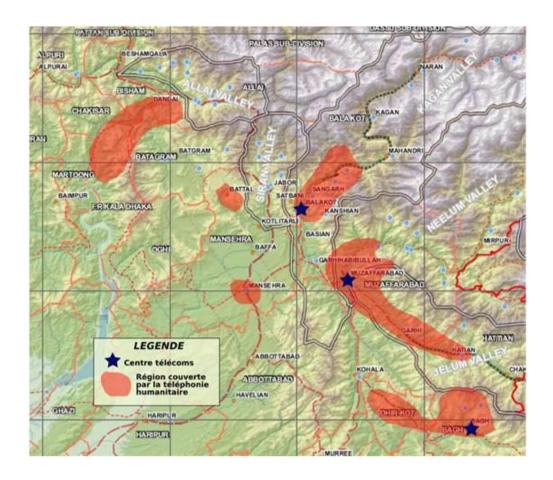




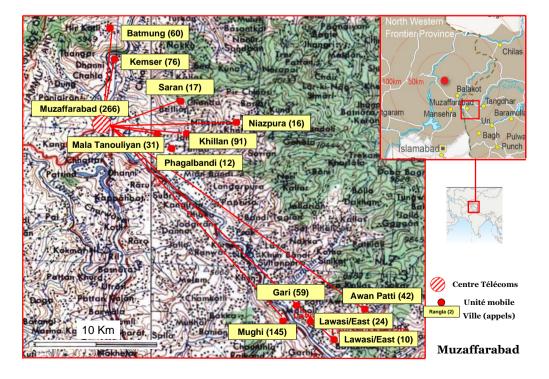
Evaluation in Batgram

Battal, severely damaged

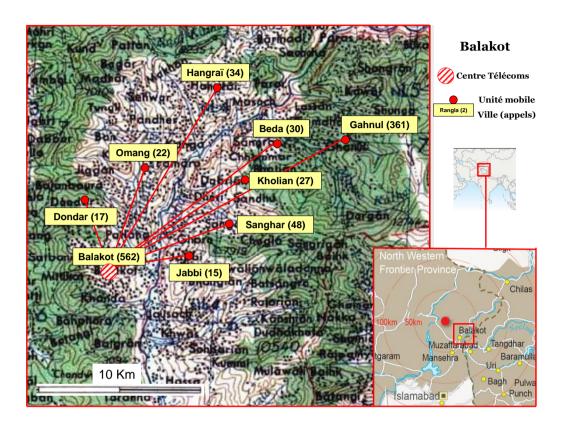
## 2. Localisation of the mission



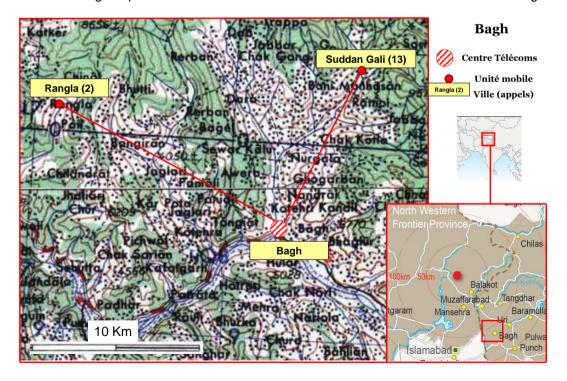
- Muzaffarabad: telecoms centre operational and mobile units present in Muzaffarabad ( University Ground, Stadium), Lawasi, Mughi, Khillan, Phagalbandi, Awan Patti, Kemser, Batmung, Mala Tanouliyan, Gori, NiazPurra, Saran and Pattika .

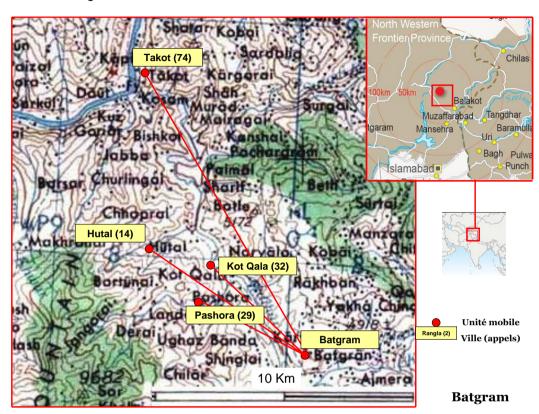


- Balakot: operational telecoms centre and mobile units in Balakot, Gahnul, Kholian, Sanghar, Beda, Dondar and Jabbi.



- Bagh: operational telecoms centre and mobile units in Suddan Gali and Rangla.





- Batgram : mobile units in Battal, Takot, Kot Qala, Pashora and Hutal.

- Manshera: mobile units in the refugee camps in the town
- Islamabad: mobile unit in the heart of refugee camp H11

## 3. The mission

#### 3.1 Principal objective

Provide immediate assistance in the affected area for local institutions, rescue teams, local and international NGOs, as well as the victims, by making available satellite telecommunications (telephone, fax, Internet, emails, transmission of data via high frequency) and by making UNOSAT satellite imageries available, until the total re-establishment of the telecoms network.

#### 3.2 Work plan

The teams from TSF Asia and France having been alerted embarked with their equipment on commercial flights to Islamabad. The Pakistani government only made an appeal for international aid on October 9<sup>th</sup> 2005. TSF Asia arrived on site on October 9<sup>th</sup>, followed by the team from France on October 10<sup>th</sup>.

From October 9<sup>th</sup> 2005, TSF coordinated with the United Nations crisis centre located at the airport then assisted in the first United Nations meeting at its office in Islamabad. Meetings immediately took place with international NGOs (Oxfam, International Relief). Immediately, these meetings allowed participants to share information, analyse the emergency situation and take decisions in collaboration with the other rescue workers. The objective was to make better use of the human and technical resources in the most affected and isolated areas, where the need for telecommunications was the most urgent.

As soon as the team arrived from France on October 10<sup>th</sup>, 2 groups were created, one in charge of Muzaffarabad, the other in charge of Balakot. Needs are very important, and more help came from France on October 17<sup>th</sup> to be in charge of Takot and Bagh.

		OCTOBRE 0 11  12   13  14   15  16   17  18   19  20  21  22  23  24   25  26  27  28  29  3													NO	VEN	/IBF	₹E			П														
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Muzaffarabad - Centre télécoms		VIII		<b>Y</b> ///	<b>V</b> ///							X//								1			Т								Т	$\top$	T	$\Box$	
Muzaffarabad - Téléphonie Humanitaire		Γ	Г	Γ			W	W	778			W	70		7					W	W	W		77				П	Т	Т	Т	Т	Т	Т	
Balakot - Centre télécoms							Τ		77			W								M			70						XIII	XIII		700	700	W.	III
Balakot - Téléphonie Humanitaire						1		W										W		X//	W											$\perp$	$\perp$	$\Box$	
Batgram - Téléphonie Humanitaire												X//	W																		Г	$\perp$	$\perp$	$\Box$	
Bagh - Centre télécoms							Г	Т	П			Г	Т						1	Г		Т	Т	П					Г	Г	Т	T	Т	Т	
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Islam abad (H11) - Téléphonie Hum anitaire								Т				П		Т								Т	Т	П				1	Г	П	Т	T	T	T	

## - Muzaffarabad (TSF present for 21 days)

3 personnel from TSF, 2 locals (translator and driver), 1 vehicle. An agreement with the NGO World Vision was signed in order to make the logistics easier for the TSF teams.

From their arrival on site (10/10/05), TSF set up its telecoms centre in the same tent as UNDAC. This centre will be removed to another tent a week later but still in the UN/NGO compound. The centre will only close once PACTEC, an organisation providing VSAT internet connections is operational.

Concerning the humanitarian phoning operations, the first one will be launched on October 14<sup>th</sup> in a refugee camp situated on the university campus. A free PCO having been opened in the town, other operations will be carried out in the valley to reach the villages which are still isolated. The planning of these operations is visible below, the numbers corresponding to the number of beneficiaries.



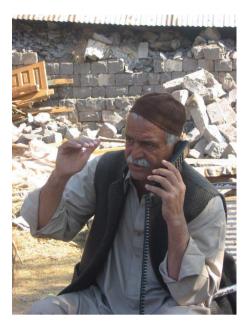
NGO's telecom centre in Muzaffarabad

									(	осто	)BRE									
Lieu dit	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Muzaffarabad			103		148														15	
Lawasi								34												
Mughi									145											
Khillan										91										
Awan Patti											42									
Kemser													76							
Batmung														60						
Mala Tanouliyan															31					
Gori																59				
NiazPurra																	16			
Saran																		17		

## - Balakot (TSF present - 29 days)

2 personnel from TSF, various local volunteers TSF will only be installed in Balakot from October 16<sup>th</sup>. The telecoms centre will remain in place until November 9<sup>th</sup> from when PACTEC will be operational.

The first telecoms operation began from October 12<sup>th</sup>. It was available in Balakot until the reestablishment of mobile telephone networks on October 17<sup>th</sup>. From this time, TSF launched their operation on foot through the mountains to reach the most isolated villages. The humanitarian phoning operations ended on October 30<sup>th</sup>; most of the valley being covered, as at that date, the GSM network was operational.



Affected Pakistani calling his family

									(	эсто	BRE									
Lieu dit	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Balakot	91		152		154	129		36												
Gahnul								36								68	96	68	93	
Beda									30											
Dondar										17										
Jabbi											15									
Omang														22						
Hangraï																				
Kholian																	27			
Sanghar																		48		

## - Takot (TSF present for 5 days)

3 TSF personnel, several local volunteers, 1 vehicle with driver. An agreement with NGO World Vision had been signed to aid logistics for the TSF teams.

The evaluation made on October 13<sup>th</sup> in the area revealed the need for telecommunications solely for the local population. However, TSF did not have the capacity to mount three telephone operations on the go. The team sent from France to strengthen the team on site arrived on October 17<sup>th</sup> to launch the first telephone operation on the following day in Batal. However, the rapid reestablishment of the GSM network pushed the team further north towards the Aloi valley. Unfortunately security considerations and concerns for the mission's safety meant that the team led to reconsider its deployment towards Balakot, Bagh and Muzaffarabad.

		OCTOBRE																		
Lieu dit	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Batal							15													
Thakot								74												
Hutal									14											
Katgola										32										
Peshara											29									

- Bagh (TSF present for 5 days)
- 2 TSF personnel, local volunteers from the NRSP association, 1 vehicle and driver. An agreement with NGO World Vision had been signed to aid logistics for the TSF teams.

Arriving on site on October 24<sup>th</sup>, TSF launched a telecoms centre in the UN camp. This centre not generating enough usage to justify the personnel's continuous presence, it was decided to make available a satellite data transmitter (RBGan) to the UN. This connexion was available to all who needed it whilst awaiting the arrival of their own equipment.

Telephone needs in the area were minimal; numerous free PCOs allowed victims to phone family members and numerous people had already made their emergency call. TSF launched two operations in very isolated villages but the needs remain few. In consequence, TSF ceased their activity here on October 26<sup>th</sup> in order to concentrate on the refugee camps in Manshera and Islamabad.

										осто	DBRE									
Lieu dit	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Suddan Gali														13						
Rangla															2					

- Manshera and Islamabad camps (TSF present for 4 days)
- 2 TSF personnel, local volunteers, 1 vehicle and driver. An agreement with NGO World Vision had been signed to aid logistics for the TSF teams.

Two days were devoted to humanitarian telephone operations in the refugee camps at Manshera and Islamabad. Knowing that telephones there are operational, TSF only authorized telephone calls abroad. The operation came to an end on October 31<sup>st</sup> 2005 in the heart of camp H11. It is to be noted that this last day was cut short because of a problem with the Pakistani army who blocked the use of TSF's satellite telephones.

									(	эсто	BRE									
Lieu dit	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Noisheriff Camp																			35	
H11																				- 7

## 3.3 NGO Centres

- Objectives for the NGOs
- To permit communications between the NGO offices and their teams on the ground.
- To facilitate coordination of rescue efforts between themselves from the teams on the ground.
- To exchange information, send reports, lists of medicines in order to best respond to the needs of victims.

#### TSF - Telecoms Centres

#### - Muzaffarabad

Muzaffarabad was the first damaged village to benefit from TSF's aid for telecommunications. This village appeared from the first hours to be the place most damaged since it was near the epicentre of the earthquake and was quite highly populated. A telecoms engineer from TSF left on Monday October 10<sup>th</sup> with some of the first team members from UNDAC in an UNDAC car. He took with him 2 RBGan satellite modems, satellite telephones, laptop computers and electrical materials.

In order to help the maximum number of organisations and in coordination with the UNDAC team. TSF was installed in the UNDAC tent for the first days of the operation. A significant



Telecom centre in Muzaffarabad

part of the centre's activities was dedicated to the distribution of UNOSAT satellite telephone maps. These maps made possible the evaluation of the level of damage by comparing satellite photos of the area before and after the disaster. UNOSAT benefited from the feedback of TSF on the ground to go further into or improve these cards according to the needs of the UN or NGOs.

For telecommunications data, TSF made an RBGan satellite modem available to the United Nations and Oxfam. At the same time, TSF furnished Internet access to all the NGOs who needed it. This assistance made it possible to put reports from the

site (Sitrep) on line on the OSOCC Virtual site. It should also be noted that several NGOs had their own means of telecommunications but did not know how to make them operational. TSF technicians themselves configure their equipment and explained its use in order that the NGO concerned could be totally autonomous.

• TSF closed the telecoms centre in Muzaffarabad on October 23<sup>rd</sup>, once Pactec was established and supplying a similar service. The computer and telecoms materials were redeployed in Bagh the following day.

#### - Balakot



Telecom centre in Balakot

An evaluation launched on October 12<sup>th</sup> 2005 in Balakot highlighted the absence of the UN and the few NGOs who were in place; there was therefore no need for telecommunications. TSF installed its telecommunications centre on October 15<sup>th</sup> 2005 at the heart of a Pakistani army camp where the search and rescue teams, international and national NGOs had regrouped.

From the first days, the importance of the centre was measured by the intensive use of satellite telephones (access to the GSM network was totally random). In the course of the day, data transmissions predominated. In effect, the number of NGOs on the ground was increasing and the first wave of reports arrived. Elsewhere, with a view to the reestablishment of the GSM network, TSF only authorised access to the satellite telephone in the event of saturation. The UNOSAT satellite imageries made available from and printed at the telecoms centres are very useful for the aid workers.

In total 23 maps were printed in different formats depending on the needs of the beneficiaries and updated on their feedback provided by TSF to UNOSAT.

TSF installed a wireless encrypted network (WIFI - 802.11g) covering the whole compound which offered to the NGOs the possibility to send and receive data from their tent, on condition that they had a computer of sufficient power and had an access code. This network freed up the telecoms centre and gave access to those organisations which did not have computers. Particular attention was accorded to the use of this network; above all the NGOs or institutions wishing to benefit from this network must initially register with TSF's telecoms centre, where the technicians would configure computers so that they are only charged with the minimum amount of data necessary. For example, the navigators are configured so that they will not download Internet images, which save space on the tapes. Finally, thanks to weather information, TSF can control in real time the data rate of all the connected equipment, when warnings sound when the download passes the allowed critical limit also allowing a margin of security to finish transmissions.

TSF made available to the Pakistani army satellite telephones in order to ease communications with the advanced base at Ganhul (a mountainous region where HF/VHF transmissions would not work). TSF also made available laptop computers or satellite telephones to NGOs or institutions.

Finally TSF installed and configured satellite equipment (notably the RBGans terminals) from NGOs having their own equipment but unable to use it. So the beneficiaries underwent a rapid course in order to be totally autonomous.

 TSF left Balakot on October 11<sup>th</sup> 2005 after being assured that the « cyber café » from the American organisation PACTEC was operational (installation of a VSAT). There was therefore no need to duplicate the service.

#### - Bagh

At Bagh TSF created a third telecoms centre on October 24<sup>th</sup>. An evaluation showed that there were numerous UN and NGO teams. However, this centre was not a success for several reasons; GSM communications totally re-established, no NGO compound (the offices were distributed throughout the town), self-sufficiency of the NGOs in terms of communications.

Like in Muzaffarabad and Balakot, the distribution of the UNOSAT satellite imageries was vital to the UN and NGO teams.

Finally TSF technicians installed and configured NGO satellite connexions and explained how they worked. Two data transmitters via satellite (RBGan) were available, one for the WHO team, the other for Save The Children UK.



UNDAC team using TSF's equipment

 $\bullet$  TSF left Bagh on October 28th 2005 after being assured of the autonomy of the UN/NGOs in terms of communication.

#### 3.4 Humanitarian Phoning Operations (HPO)

#### - Muzaffarabad



TSF reached the remotest mountainous areas to allow victims to reassure their relatives

In Muzaffarabad, humanitarian phoning operations (HPO) for the affected population began on October 14<sup>th</sup> 2005. Two days were dedicated to the town itself. These two operations, available to all victims, were carried out at the camp at the university, judged as the most important site and situated in the centre of the town. Knowledge of the centre was distributed throughout the town by an information campaign. Following this, TSF targeted its operations beyond the town because the Pakistani army (SCO) rapidly installed « Free PCO » call centres in Muzaffarabad.

TSF operations in this region were carried out according to three geographical areas: the Jelum valley, the Neelum valley and the mountain Pic Chinasi (north-east of Muzaffarabad). These areas were determined in cooperation with the NGOs which had local knowledge of the area, notably the Islamic Relief organisation, the only international NGO on site for several years.

In these three areas, the HPOs were carried out with the food distribution operations allowing the service to reach the biggest number of survivors. In every case, the TSF team informed the local population following its evaluation that the possibility to call would be offered from the following day (or the day after). These mobile telephone missions were carried out using a 4X4 vehicle, or on foot.

Mobile telephones could not be used in the valleys targeted. TSF ended its HPOs once the army had re-established the main land telephone lines. This was a very rapid operation (2 to 3 weeks) principally thanks to the « drop cable » technique which consisted of putting in place a telephone cable on the ground and along the road or lanes where there was no risk of the cables being cut.

Following the HPOs and its own evaluation in the villages, TSF collected the maximum amount of information for HIC (Humanitarian Information Centre) in the OCHA office. This data corresponded to the evaluation formula of HIC but also to other data such as GPS locations (villages cut off, roads blocked ...)

• October 31<sup>st</sup> 2005, the TSF team went to Pattika, the main village in the Neelum valley and found that even in this zone though very remote the land telephone lines worked. In other zones initially targeted, the telephones had been partially reconnected. More and more PCOs (Post Call Office) were put in place by the operators, and calls were not considered as a priority. TSF therefore closed its operations in Muzaffarabad.

## - Balakot

The first HPO was launched in Balakot on October 12<sup>th</sup> 2005. In total only five days were necessary to cover the whole town. Following this, the operations were launched in the surrounding villages. Two weeks were allocated to reach the villages. The furthest were completely isolated, all roads were impassable and their access only guaranteed after long hours of walking to cross the mountains.

TSF initially calculated its work plan according to information and assessments from Médécins Du Monde France (MDM). In effect they sent their medical teams into the mountains in order to distribute aid. TSF therefore installed their call centres near to the MDM aid centres. The interest was two-fold: to respond to more beneficiaries and to give the medical teams a communications tools in case of an emergency.

When the MDM team left Balakot TSF concentrated its efforts in the army distribution centre scattered throughout the mountains. This action was carried out in close collaboration with the army.



TSF also set up, for two days, a call centre near to its telecoms centre in Balakot. In effect, a refugee camp was set up and the NGO food distribution centre concentrated on the affected population.

The progressive reestablishment of the GSM telephone service in the mountains pushed the TSF team to reach the more isolated areas. Also, a team went to Gahnul in a distribution and care centre run by the Pakistani army for 3 days in order to respond to the needs of the population.

Phoning operations in Balakot

In each village covered, TSF took charge of filling in and sending to the United Nations Humanitarian Information Centre (HIC) the evaluation sheets supplied by the organisations.

At the end of the mission, a « free PCO » (Post Call Office) was created in Balakot. It allowed victims to make calls throughout Pakistan. TSF found out that, in certain sites, the access to the GSM network was operational, and proposed that in this particular place only calls to foreign countries should be allowed.

• On November 6<sup>th</sup> 2005 TSF considered that the GSM network was operational. The Pakistani army had provisionally re-established the land lines by pulling telephone cables along the valley. Kaghan was accessible by telephone. TSF therefore ceased its humanitarian phoning activities, only allowing access to the telephone for emergency calls.

## - Bagh

The rapid reestablishment of the GSM network and the numerous « free PCO » covering the valley limited the needs of the population in terms of telephone calls. TSF therefore coordinated with those in the army responsible for telecommunications to cover the remaining areas without PCO access. An agreement was made with the local NGO, NRSP, who provided a guide and volunteers. Three days, beginning on October 24<sup>th</sup> 2005, were needed to cover these areas but the results were not those expected; many people had already contacted their families from the PCOs available in the valley.

• On October 27<sup>th</sup> 2005, TSF stopped its humanitarian phoning activities in the region of Bah after having noted the lack of centres.



Bad road conditions slowed down humanitarian relief effort

#### - Takot

The first objective of the team sent to the Batgram region was to cover the town of Battal. Arriving on October 18<sup>th</sup> 2005, it proved to be that the GSM telephone network had been reestablished and that victims had already made their initial telephone calls. Very few calls were made; the situation was very tense because very little aid had reached the village.

The decision was therefore taken to cover an area to the north of Batgram and the Alloi valley. These operations were carried out during the following three days in the areas surrounding Takot. However, the Alloi valley remained inaccessible, some mud slides happening in front of the TSF vehicle. The security of the team became a priority.

#### - Refugee camps

At the end of the mission, TSF launched phoning operations in two camps in Manshera, and in camp n° H11 in Islamabad. Knowing that access to the telephone network was totally operational, TSF only offered calls abroad. Unfortunately tensions in the relationship with the Pakistani army in camp H11 (who did not regard the use of satellite telephones favourably) obliged the team to cut short its operation.

#### 4. Beneficiaries

4.1 Local authorities, rescue organisations, local and international NGOs, international agencies using NGO centres based in the disaster area.

These various organisations were assisted in their work by the installation of telecommunications centres which enabled them to be better informed of the general situation and thus able to inform their base camp of their needs.

All the rescue teams, the local and international organisations and institutions were considered as potential beneficiaries for TSF insomuch as they did not have their own communications systems.

## 4.2 The local population

All the inhabitants of the towns where TSF positioned were eligible to benefit, if they had lost a family member of if their house had suffered major damage. It is essential for each family to be able to speak to other family members to send and receive vital information concerning their state following the disaster. In terms of priorities, TSF made sure that the first call for the person concerned was a matter of priority.

Many operations were carried out on foot in order to reach isolated and more distant survivors. Through the possibility of making a telephone call, these contacts brought mental support of major significance to a section of the population completely neglected.

## 5 Results for NGOs and government authorities

- 68 organisations benefited from assistance supplied by TSF
- United Nations organisations: UNDAC, UNESCO, UNHCR, UNICEF, UN IRIN, OCHA, WFP, WHO
- local and international NGOs: ACTED, Action Against Famine, Atlas Logostics, Bernama, BKN, Brooke Hospital for Animals, Chatkwal Camp, Child, Cordaid, Spanish Red Cross, Demira, Doctor World Wide, Durmuy, DWW, EPA, Global Peace Malaysia, Good Neighours, Handicap International, Humanitarian Assistance Society, IFRC, Islamic Relief, IOM, KNH, KRC, Malaysia Relief, MBRM HC&E, MDM, Mercy Hospital, Mercy Malaysia, Mercy M'Sta, Oxfam, Patan Development Foundation, Peace Winds Japan, amsudin Momemmah, Save The Children UK, SUABI, SUNGI, TRAC, Tzu Chz, UAE, UMKE of Turkey, UPSUDAN, UTUSAN Malaysia,

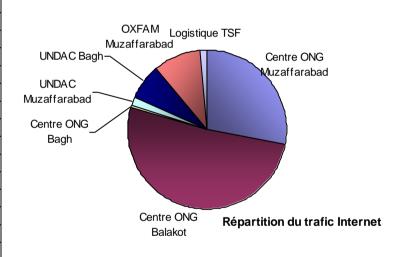
-government organisations: CISAR, Civil Defence, CMUM Defence, Coordination District Administration, DFID, District Adman, ECHO, Malaysia Government, IT University Quetta, National Security Division, SAMU Mondial, SDC, Adzerbidjan Rescue, French Civil Security (SDTS 95), Singapore Civil Operation Force, SRSA, Turkish Defence

- Pakistan authorities: the army and the police
- Pakistan people in the NWFP and Azad Kashmir regions :
- Neelum/Jelum Valleys : Muzaffarabad (University Ground, Stadium), Lawasi, Mughi, Khillan, Phagalbandi, Awan Patti, Kemser, Batmung, Mala Tanouliyan, Gori, Niaz Purra, Saran, Pattika, Suddan Gali, Rangla.
  - Kaghan Valley: Balakot, Gahnul, Kholian, Sanghar, Beda, Dondar, Jabbi.
  - Alai Valley: Takot, Kot Qala, Peshara, Hutal

69,8% of NGOs present on site benefited from TSF's services

Number of NGO's and organisations in Pakistan (identified by UN-HIC)	96
Number of Beneficiaries	67
NGOs and organisations Catchments %	69,8

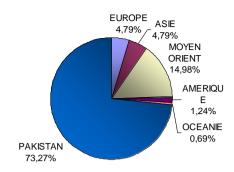
NGO phoning Operations	
Registered calls	660
Total Time (h:min:sec)	41:54:34
Calls from Balakot	449
Time Balakot (h:min:sec)	26:21:24
Calls from Muzaffarabad	211
time Muzaffarabad (h:min:sec)	15:33:10
DATA (Mbytes)	
Consumption	3151,82
NGO Centre Muzaffarabad	884,15
NGO Centre Balakot	1623,86
NGO centre Bagh	9,07
Lease to UNDAC Muzaffarabad	55,43
Lease to UNDAC Bagh	227,68
Lease to OXFAM Muzaffarabad	305,37
Lease to Save The Children Bagh	4,68
TSF Logistics	41,59



# 6. Population Results

- 2174 families have benefited from direct aid from TSF, being
  - North West Frontier Province (NWFP): 1322
  - Azad Jammu and Kashmir (AJK): 852

TELEPHONIE HUMANITAIRE	
Registered Calls	2174
Time (h:min:sec)	87:56:30
NWFP Calls	1322
NWFP time (h:min:sec)	49:19:48
AJK Calls	852
AJK time (h:min:sec)	38:36:42



Téléphonie Humanitaire - Destination des appels

The needs were really very significant in view of the number of victims and the widespread areas involved. On the other hand, many of the zones were very difficult to reach and needed to be reached on foot.

#### 7. Activities

#### Allocation of:

- 13 satellite lines
- 3 Internet stations and the transmission of high speed data

## 7.1 Telecommunications centres for the NGOs:

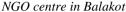
- Muzaffarabad (AJK) from October 10th - 22nd

Equipment: 2 RBGans terminals - high speed data transmitters, 1 MiniM - satellite telephone, 4 computers, fax, printer, scanner

Specific activities carried out by the telecoms centre in Muzaffarabad:

- Secure wireless network covering the whole compound
- Making available a high-speed modem satellite (RBGan) for the UNDAC team as well as a computer for 6 days.
- Preparing and printing cards, A2/A3 and A4 format (notably the Unosat cards)
- Putting on line the UNDAC reports (SitRep) on the site for exchanging data in Virtual OSOCC of OCHA + putting on line on this site various information as well as a list of contacts
- Loaning satellite telephones and batteries for satellite telephones in order to give each « Search and Rescue » team a reliable communication means in case of security problems.
- Making available a high-speed satellite modem (RBGan) in the Oxfam office for three weeks, whilst waiting for their own equipment.
- Configuration and courses in RBGans : ECHO, UNDAC
- Support for the Pactec organisation following their installation in Muzaffarabad.







NGO centre in Muzaffarabad

- Balakot (NWFP) from October 15th to November 11th

Equipment: 2 RBGans - high-speed data transmitters, 1 MiniM - satellite telephone, 4 computers, fax, printer, scanner ...

Specific activities carried out by the telecoms centre in Balakot:

- Secured wireless network covering all the compound
- Making available satellite telephones to contributors in the town of Balakot.
- Making available a satellite telephone for the care / distribution centre run by the Pakistani army in Gahnul.
- Making available two computers for Action Against Hunger
- Preparing and printing 23 topographical maps (notably the Unosat maps).
- Daily reports sent from WHO, following the progress of patients
- Putting on the Virtual OSOCC web portal, diverse information such as lists of contacts
- Assisting coordination with the Pakistani army.
- Configuring and teaching the use of RBGans: ECHO, Spanish Red Cross, WHO, ACTED
- Supporting the Pactec organisation following its establishment in Balakot.
  - Bagh (AJK) from October 24th 27th

Equipment: 2 RBGans, high speed data transmitters, 1 MiniM - satellite telephone, 3 computers, fax, printer and scanner.

Specific activities carried out by the telecoms centre in Bagh:

- Secured wireless network covering the entire compound
- Preparation and printing of maps, format A2/A3 and A4 (notably the Unosat maps)
- Configuration of and courses in the use of satellite equipment: UNDAC, WHO, Save The Children, Alisee
- Making RBGans available: WHO, Save The Children.

## 7.2 Humanitarian telephones:

## From October 12th to November 3rd in the disaster areas

Mental support - family links: Calls for an average of 2 minutes per family, on an international but above all national level, enabling demands for personalised help, sending money, tents, clothing, family visits.

A telephone call often manages to break into a victim's sense of isolation, and helps them to rise above their personal experiences in the disaster, primary support as much for those families who call as well as those who receive the call.

Difficulties seen, that it was impossible to access certain devastated areas (mud slides and the instability of the roads). Access to certain villages was only possible on foot, as it was impossible for helicopters to land in the mountains. Population scattered in the mountains, necessity to concentrate on the distribution centres.

Kashmir is an area of high tension between India and Pakistan. The population may be armed (attacks carried out on humanitarian convoys on the road connecting Batgram and Manshera). In addition, the satellite transmission equipment was judged as « sensitive » material by the Pakistani army. On this last point, there was no problem with TSF's activities in the crisis area, it was from another HPO in camp H11 in Islamabad and the teams had to cancel the activity under the threat of seeing the telephones confiscated.

The incessant vibrations provoked mud slides and destroyed structures made fragile by the first tremor.



Use of 4X4vehicles to reach the villages

akistani army and the NGOs on site. CC site.

uring the provisioning of assets (tents, food

the central office of each organisation and institution working in the disaster area, presentation of projects asking for finance, evaluations, photos...

- Telephone calls when the mobile network is unusable.
- Office work : compilation of reports, photos, printing, scans etc ...
- Permanent contact number: receiving telephone calls and easing communication with the sites.

#### 7.5 Support for Medical teams

- Making satellite telephones available to the Médécins du Monde teams during operations on foot in the isolated areas of the Kaghan valley
- Making a satellite telephone available in the army relief centre in Gahnul (Kaghan valley)
  - · Sending monitoring epidemiological reports to Balakot
  - Calls for medical emergencies
  - Demand for medical supplies
  - Permanent contact with the hospitals at Manshera and Abottabad

#### 7.6 Diffusion of information

- Situation reports, daily monitoring of information and the earthquake situation
- Circulate information amongst the international operators of the state of the situation (sending reports and photographs)
- Compiling information during evaluation on the ground: updating the data for HIC
- Putting reports on line for UNDAC (SitRep) on the Virtual OSOCC site.

#### 7.7 Technical assistance

- Configuration of satellite equipment and computers belonging to organisations.
- Training on the use of satellite equipment
- Assistance in the writing or reports, sending emails ...

## 8. TSF Departure

- TSF closed the telecom centre in Muzaffarabad following the establishment of Pactec who provided a similar service from October 23<sup>rd</sup>. The telecoms and computer equipment will be deployed to Bagh.
- TSF left the Bagh area on October 28<sup>th</sup> after assuring themselves that the NGO/UN were self-sufficient in telecoms.
- Finally, TSF left Balakot on November 11<sup>th</sup> after being assured that the « cyber café » of the Pactec organisation was operational (installation of a VSAT).



Population using the satellite phone in remote villages

## 9. Conclusions and Comments

TSF was amongst the first NGOs to respond to the catastrophe which happened on October 8<sup>th</sup> 2005 in the regions of the Northern Pakistan and Kashmir. Evaluations revealed that the need for telecommunications was urgent and essential in the affected areas. The state of the roads, the after shocks and the insecurity in these areas made the work of the teams very difficult. TSF proved its worth throughout the mission in covering above all the two most damaged zones, Muzaffarabad and Balakot then later the regions of Allai and Bagh.

After a disaster of such magnitude, the population was in a state of shock, there were sometimes entire families who were affected and most of the schools were destroyed by the shock wave. The estimates were that 25% of the victims were children. By making our satellite telephone lines available, the survivors in the NWFP and AJK regions benefited from irreplaceable mental support. Through these calls, they could communicate their most urgent needs to family members and at the same time receive personal aid (tents, money ...). The reestablishment of the GSM telephone network and the installation of « free PCO » brought to an end this activity some three weeks after the disaster.

The activity at TSF's Telecom Centres, in particular in Balakot and Muzaffarabad was indispensable as a key element in coordinating the reestablishment of he humanitarian aid in the area. In addition to the aid supplied through the coordination. Tthe TSF's Telecom Centres played an essential part in the distribution of information, notably thanks to the different satellite and topography maps offered by the UNOSAT site.

