Once all the previous steps have been completed, we make an outline of a plan wich later becomes a project, the one which is revised and approred to then become the Definitive Plan.

Besides that, there are specific plans for each kind of disaster: Earthquakes, floods, droughts, volcanic eruptions, etc.

IV. CONCLUSIONS

1. Preparing simultaneously for disaster and technological disaster is complex, but planning models exist now that make integrated planning easier.
2. Integrated planning involves a shift in emphasis from post disaster relief to predisaster preparedness.
3. A public education program that gets usable information to the people who should be prepared for disaster and that helps change their attitude from one of indifference or fatalism to one preparedness.
4. The integration of disaster planning into the mainstream of government decision making.
5. Stronger organizations and better coordination of the hiks between them.
6. Better trainning at all levels.
7. And the increased tranfer of technology and knowledge to those at risk with other countries: Japan, U.S.A., France.
8. Local media appropriate for disaster communications

(especially radio) should be bolstered an local emergency response mechanisms strengthened.

9. The establishment of early warning systems useful for all disasters.
10. Regulation of land use (including the siting and transportation of hazardous materials) should be rationalized internationally as well as locally.

ACKNOWLEDGMENTS

I would like to express my gratitude to the Government of Japan though the JICA and the National Research Center For Disaster Prevention who made it possible my participation in this seminar, where I knew and learned the new technology about the Disaster Prevention during my stay in this very hospitable and beautiful country.

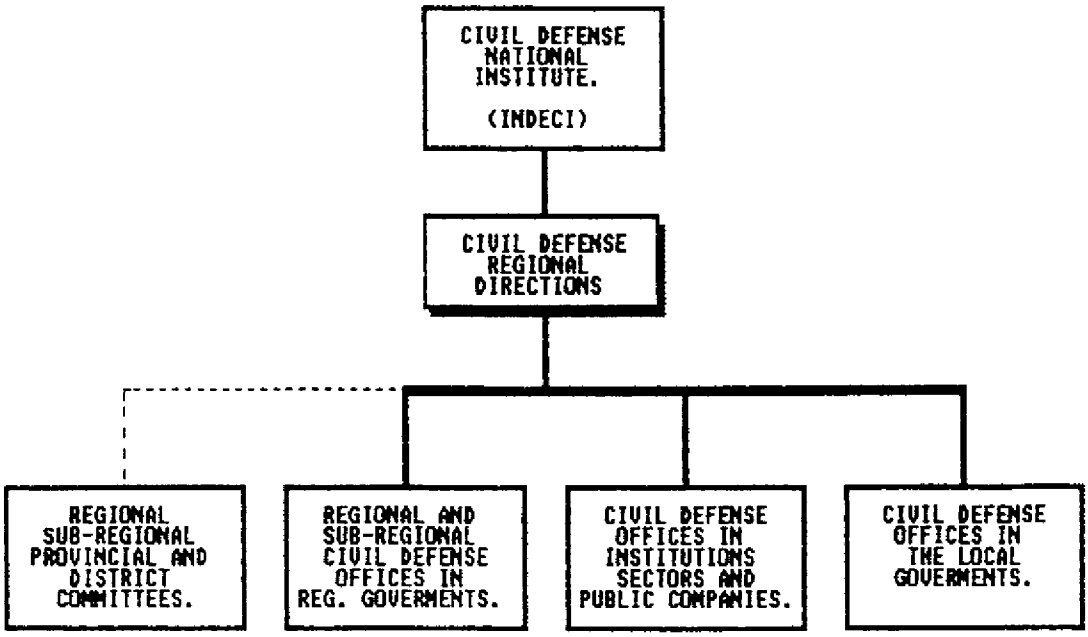
I wish special thank to Mrs. Nannichi who help me always and was also a good friend. Also a Miss. Ebisawa for her cooperation, and all participants because with them incharge experiences about our countries and was a good friends.

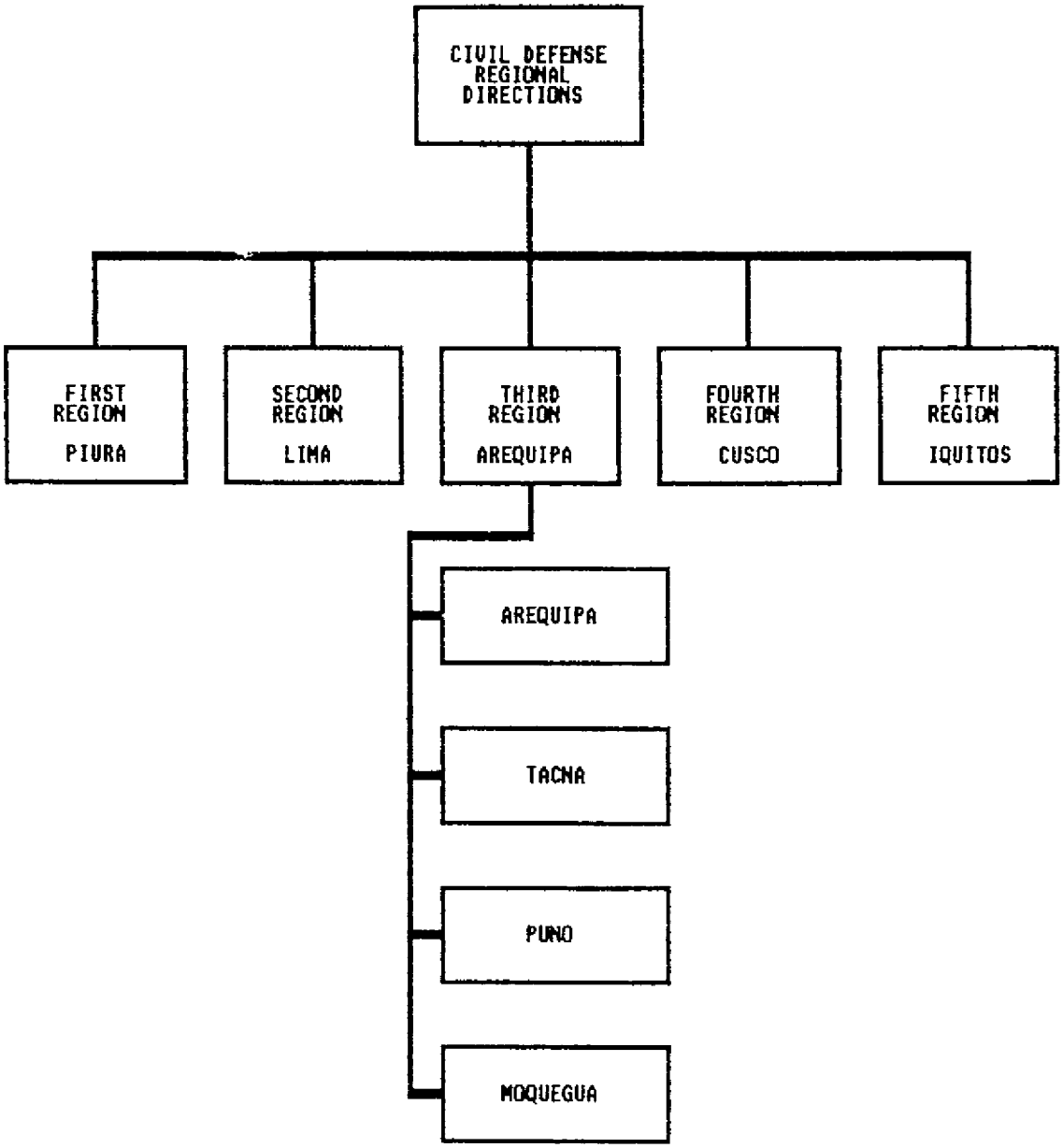
My gratitude also for all members TBIC for their orientation everydays.

I will remember always

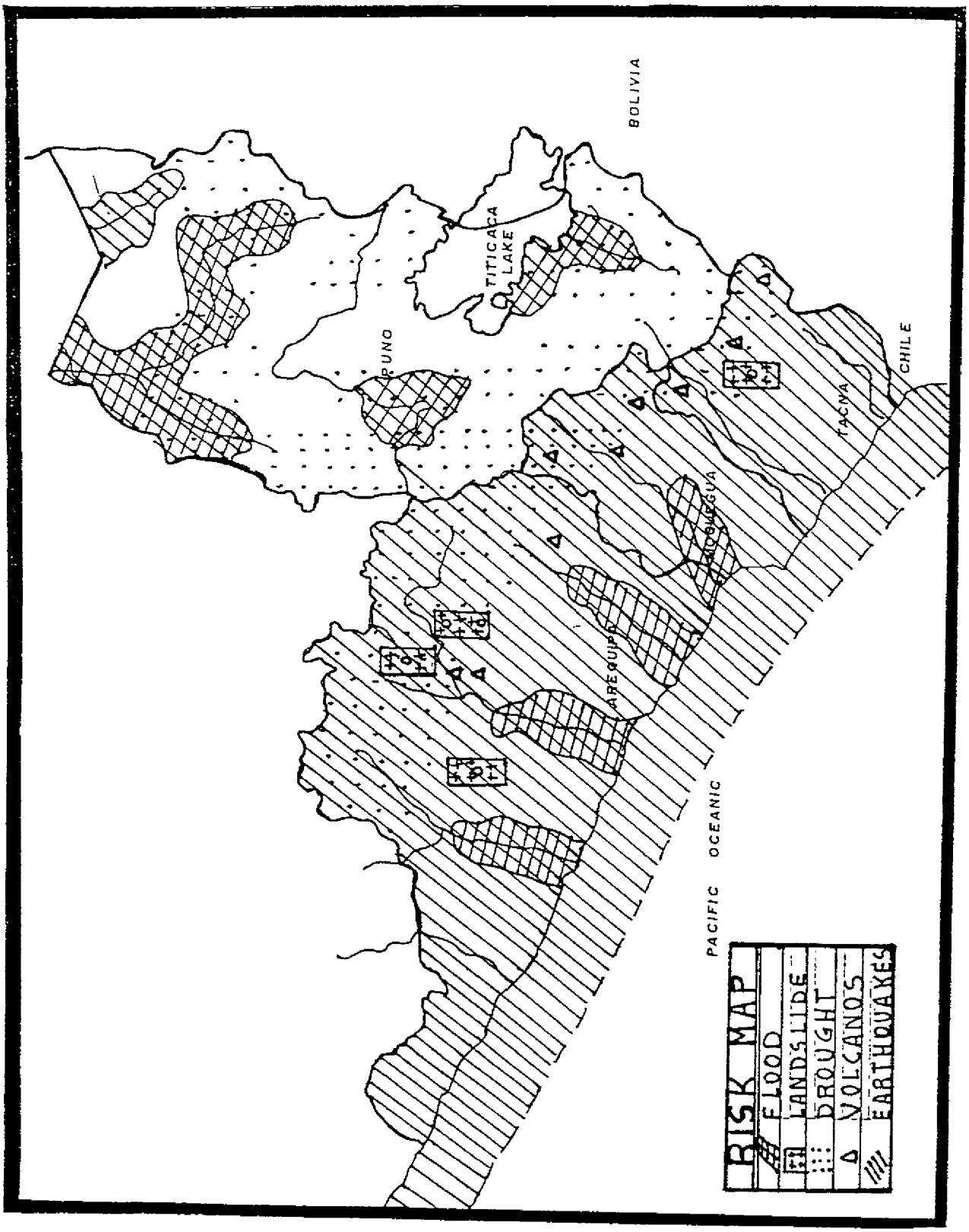
Sayonara.

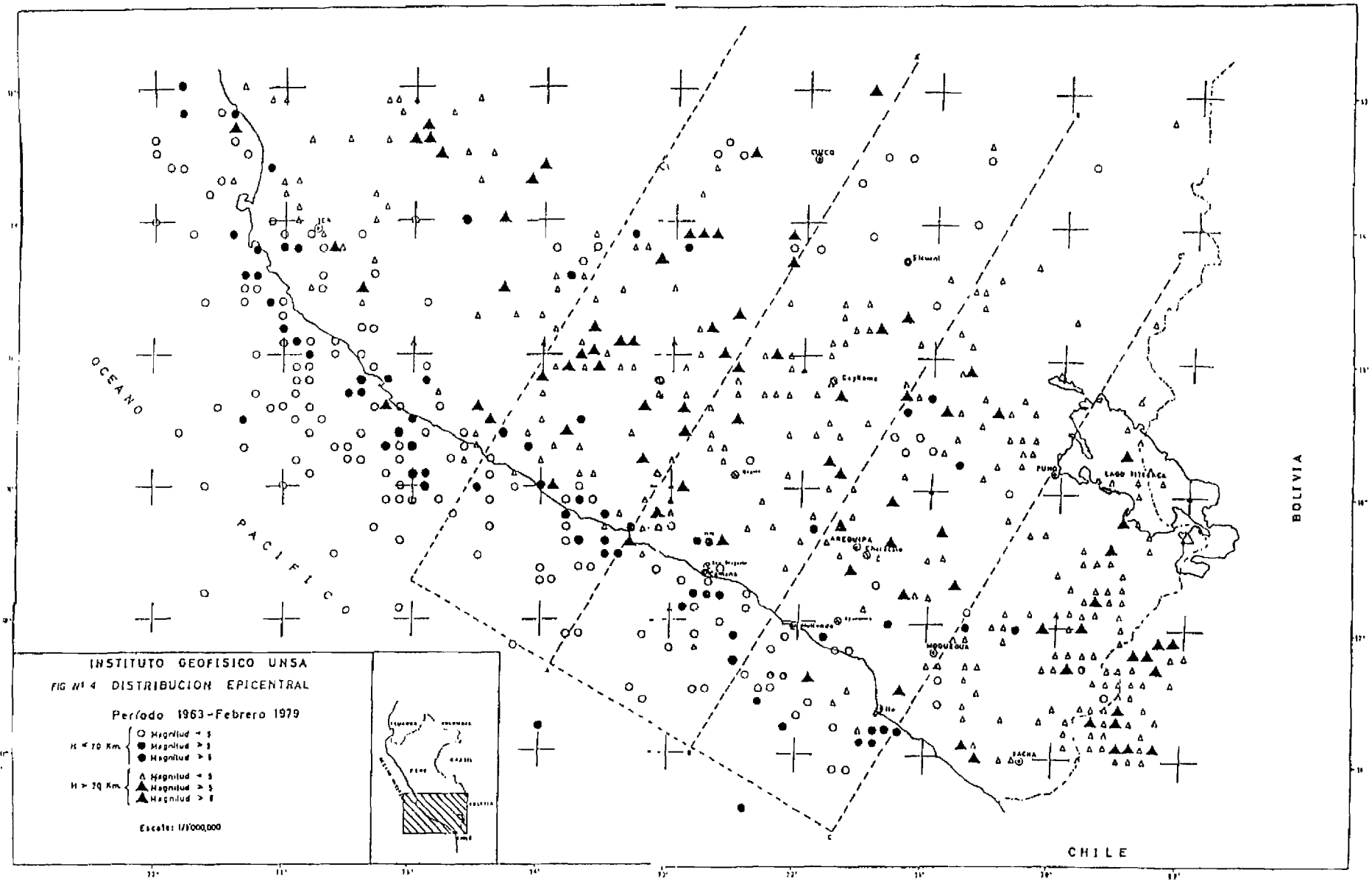
CIVIL DEFENSE NATIONAL SYSTEM

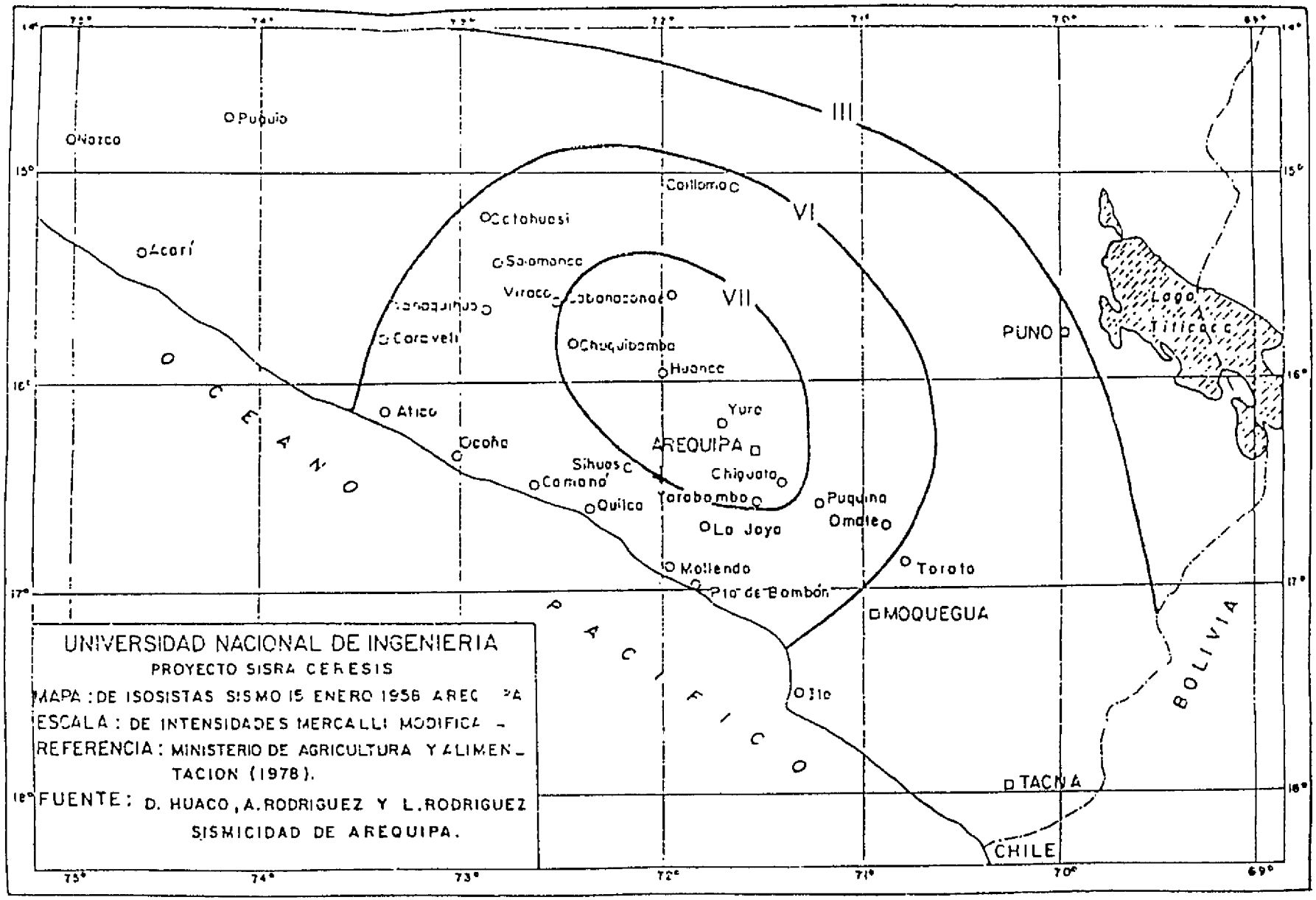


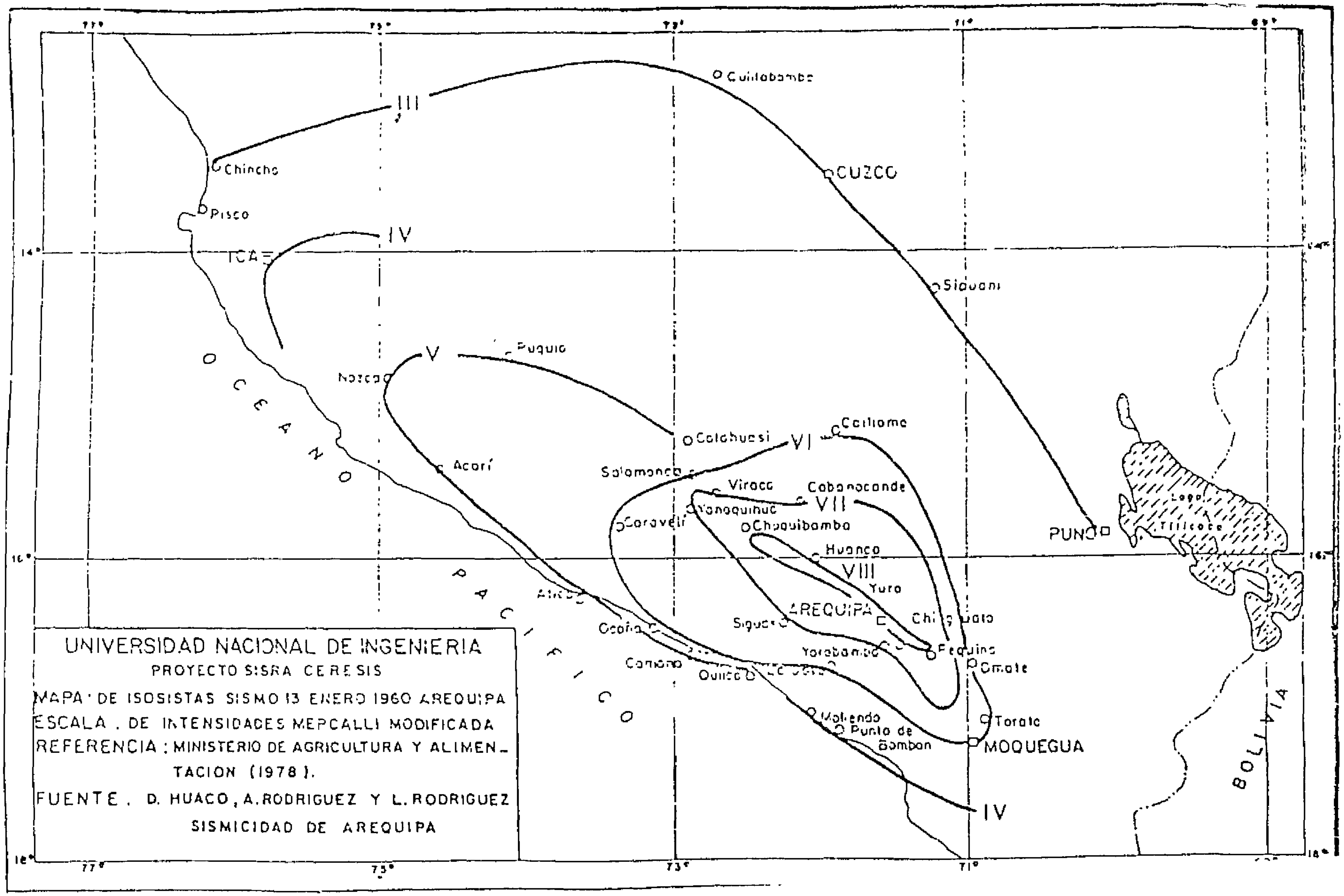

CIVIL DEFENSE
REGIONAL
DIRECTIONS
FIRST
REGION
PIURA
SECOND
REGION
LIMA
THIRD
REGION
AREQUIPA
FOURTH
REGION
CUSCO
FIFTH
REGION
IQUITOS
AREQUIPA
TACNA
PUNO
MOQUEGUA


ECUADOR
COLOMBIA
BRASIL
PACIFIC OCEAN
LIMA
BOLIVIA
CHILE
I
II
III
IV
V


BOLIVIA
TITICACA LAKE
PUNO
CHILE
TACNA
AREQUIPA
MOQUEGUA
PACIFIC OCEANIC
RISK MAP
FLOOD
LANDSLIDE
DROUGHT
VOLCANOS
EARTHQUAKES


OCEANO
PACIFICO
BOLIVIA
CHILE
CUSCO
AREQUIPA
PUNO
LAGO TITICACA
MOQUEGUA
TACNA
INSTITUTO GEOFISICO UNSA
FIG Nº 4 DISTRIBUCION EPICENTRAL
Período 1963 - Febrero 1979
H < 70 Km
Magnitud < 5
Magnitud > 5
Magnitud > 6
H > 70 Km
Magnitud < 5
Magnitud > 5
Magnitud > 6
Escala: 1/5'000,000


III
VI
VII
Nazca
Puquio
Acarí
Cotahuasi
Salamanca
Viraco
Chuquibamba
Huance
Caraveli
Atico
Ocoña
Camaná
Quilca
Sihuas
Yura
AREQUIPA
Chiguata
Tarabamba
La Joya
Mollendo
Pta de Bombón
Puquina
Omate
Torata
MOQUEGUA
TACNA
Ilo
PUNO
Lago Titicaca
BOLIVIA
CHILE
OCEANO PACIFICO
UNIVERSIDAD NACIONAL DE INGENIERIA
PROYECTO SISRA CERESIS
MAPA : DE ISOSISTAS SISMO 15 ENERO 1958 AREQUIPA
ESCALA : DE INTENSIDADES MERCALLI MODIFICADA
REFERENCIA : MINISTERIO DE AGRICULTURA Y ALIMENTACION (1978).
FUENTE : D. HUACO, A. RODRIGUEZ Y L. RODRIGUEZ
SISMICIDAD DE AREQUIPA.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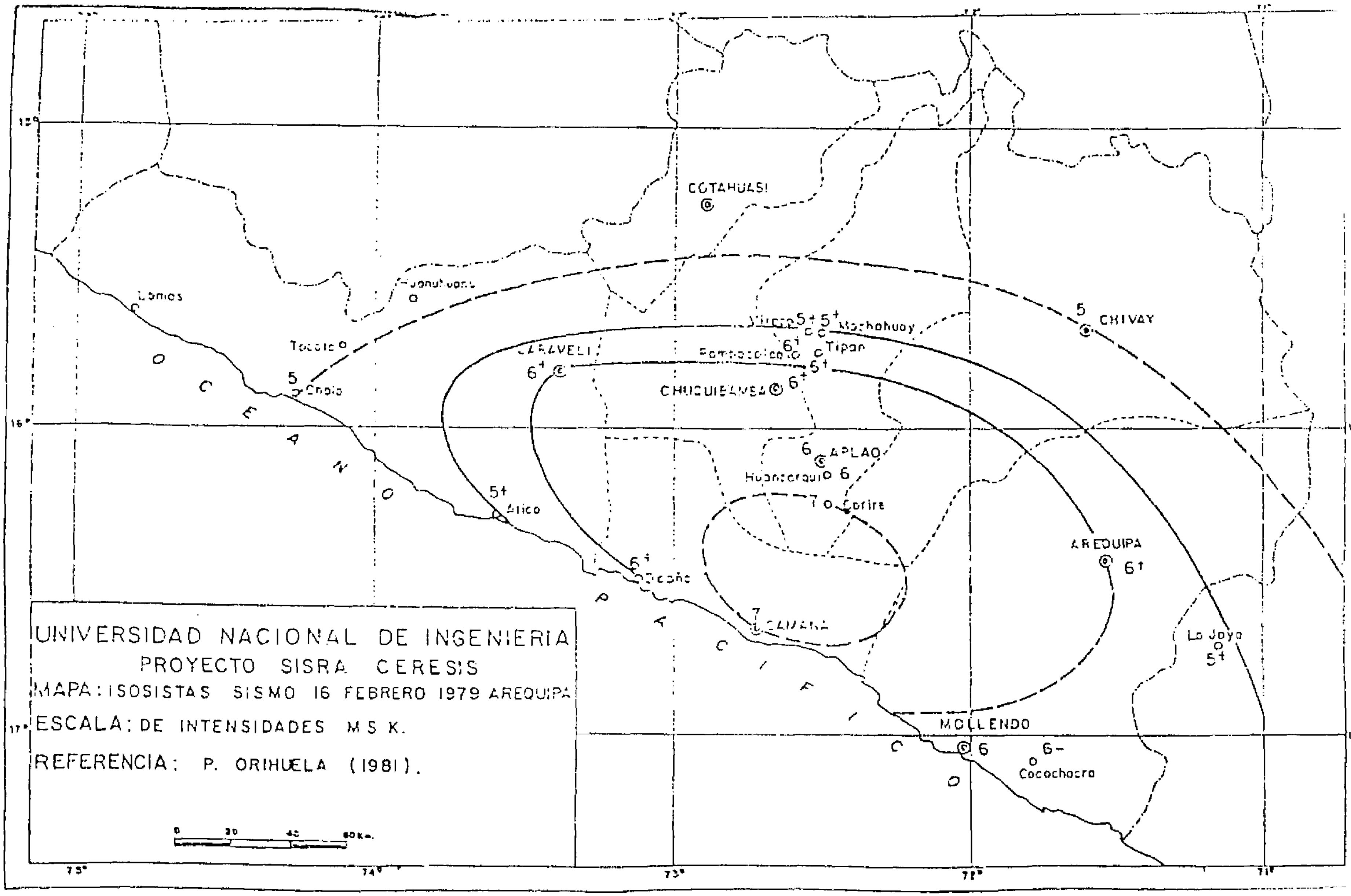
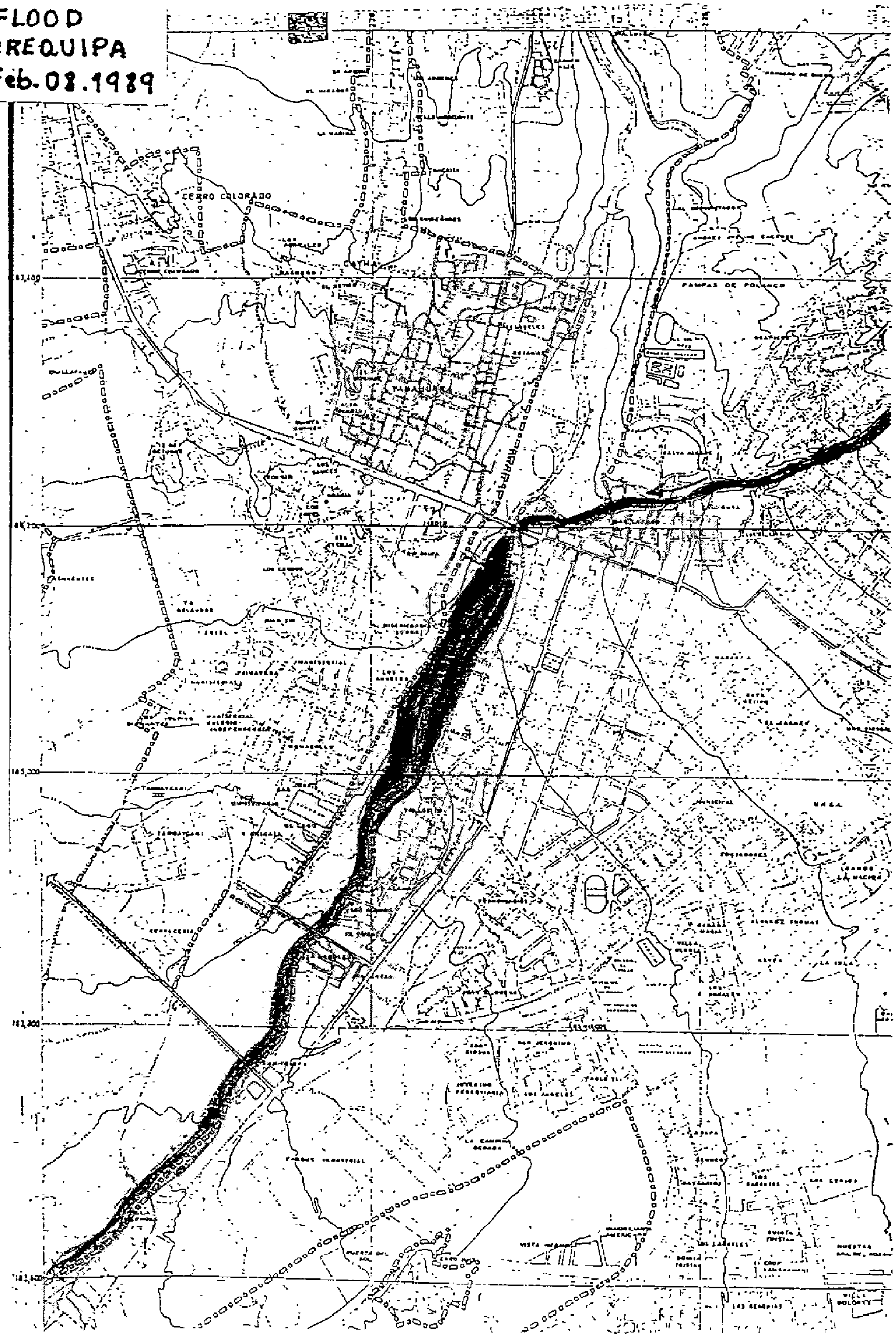
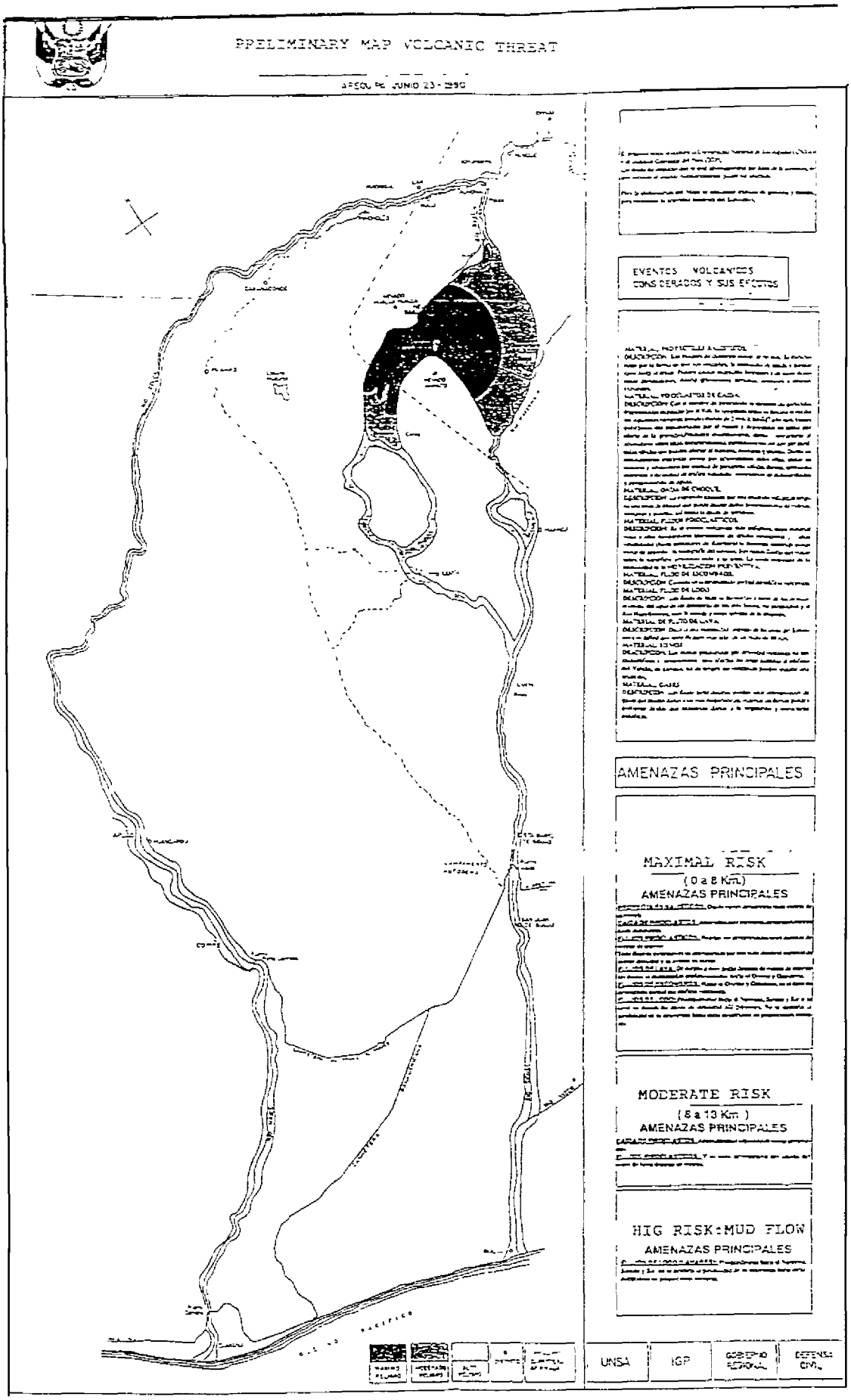
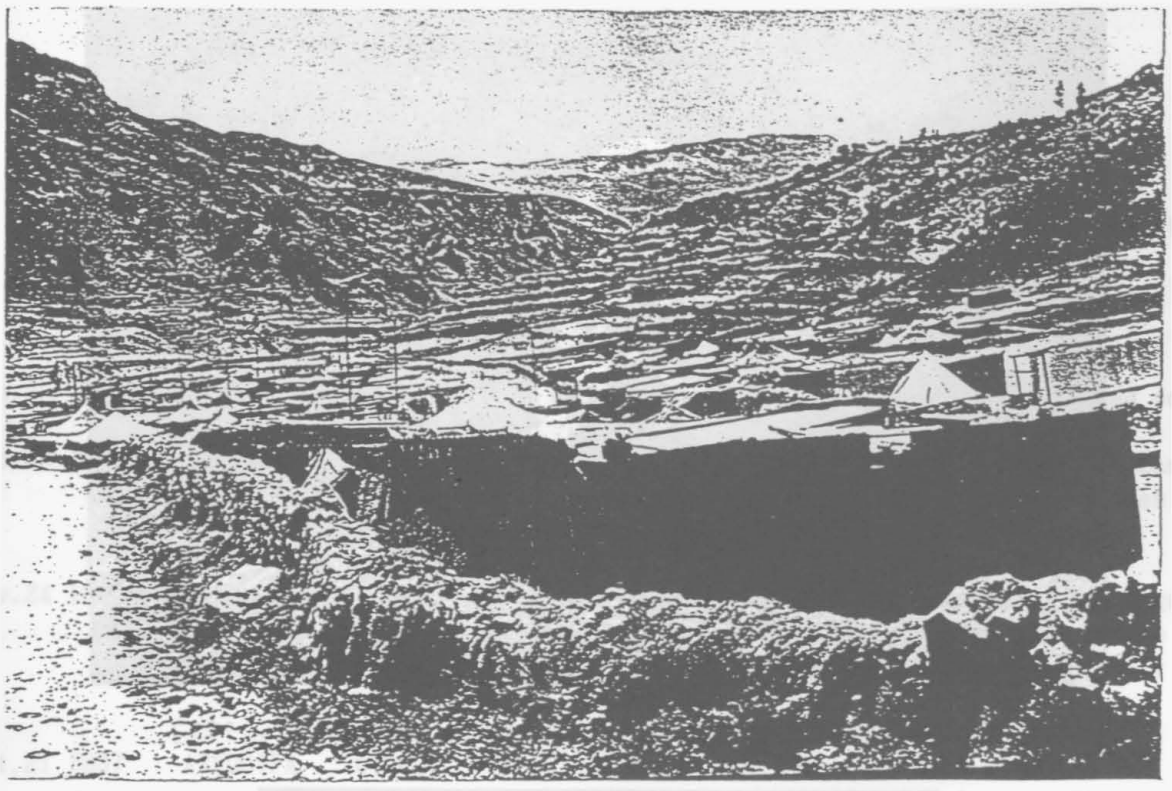
PROYECTO SISRA CERESIS
MAPA DE ISOSISTAS SISMO 13 ENERO 1960 AREQUIPA
ESCALA . DE INTENSIDADES MERCALLI MODIFICADA
REFERENCIA : MINISTERIO DE AGRICULTURA Y ALIMENTACION (1978).
FUENTE . D. HUACO, A. RODRIGUEZ Y L. RODRIGUEZ
SISMICIDAD DE AREQUIPA
OCEANO PACIFICO
BOLIVIA
Lago Titicaca
Chincha
Pisco
ICA
Nazca
Puquio
Acarí
Cuillabamba
CUZCO
Sicuani
PUNO
Colchuesi
Cailloma
Salamanca
Viraco
Cabanaconde
Yanaquihua
Chuquibamba
Caravelí
Huanca
Yura
AREQUIPA
Siguas
Ocoña
Camaná
Quilca
Yarabamba
Pequina
Omate
Mollendo
Punta de Bombon
Torata
MOQUEGUA
III
IV
V
VI
VII
VIII
IV
14°
16°
18°
77°
75°
73°
71°
69°


UNIVERSIDAD NACIONAL DE INGENIERIA
PROYECTO SISRA CERESIS
MAPA: ISOSISTAS SISMO 16 FEBRERO 1979 AREQUIPA
ESCALA: DE INTENSIDADES M S K.
REFERENCIA: P. ORIHUELA (1981).
0 20 40 60 Km.
COTAHUASI
CHIVAY
CARAVELI
CHUQUIBAMBA
APLAO
Huancarqui
Corire
Tipan
Machahuay
Pampacolca
AREQUIPA
La Joya
MOLLENDO
Cocachacra
CAMANA
Ocoña
Atico
Chala
Tocota
Lomas
O C E A N O P A C I F I C O
75°
74°
73°
72°
71°
15°
16°
17°

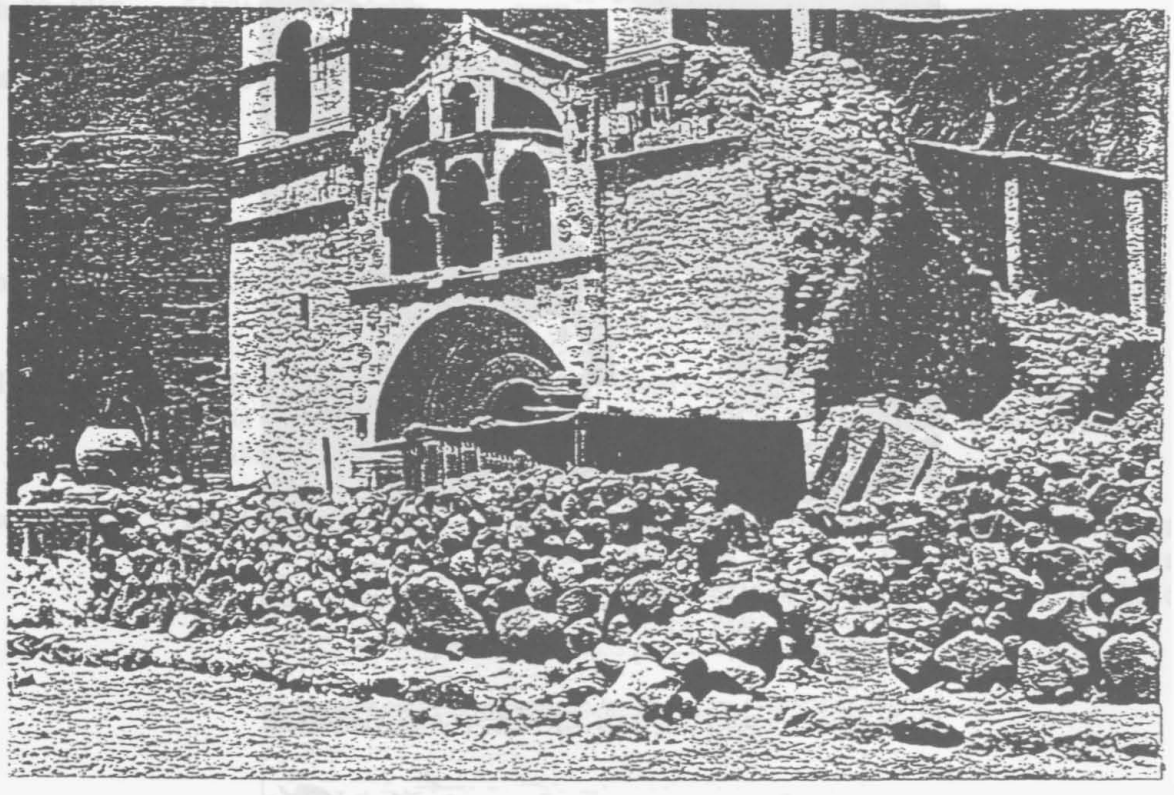
FLOOD
AREQUIPA
Feb. 08. 1989



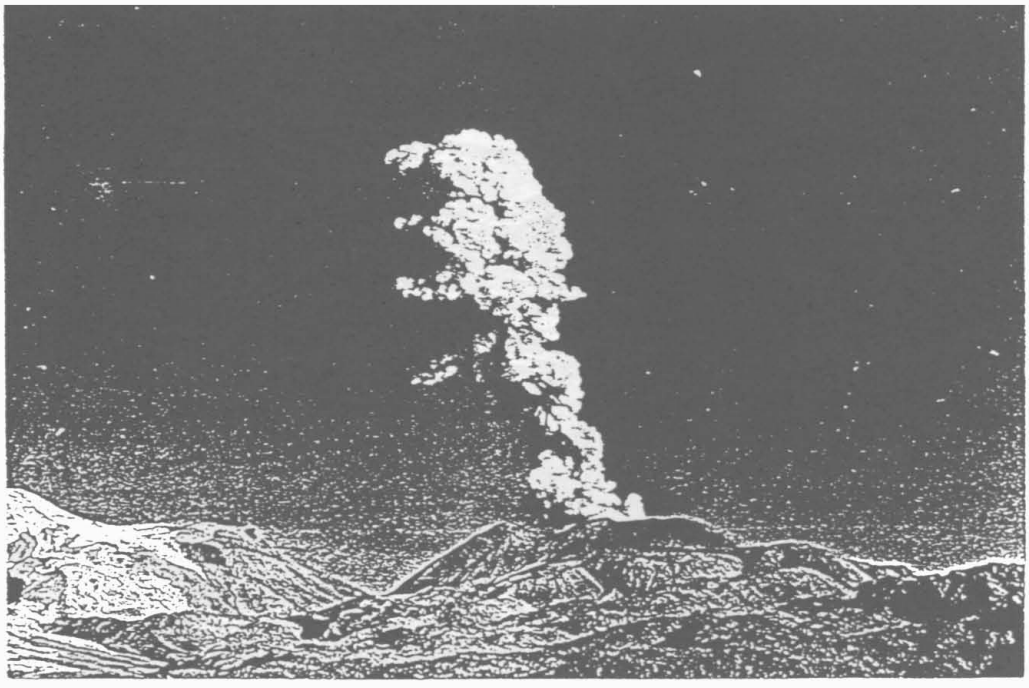

PRELIMINARY MAP VOLCANIC THREAT
EVENTOS VOLCANICOS CONSIDERADOS Y SUS EFECTOS
AMENAZAS PRINCIPALES
MAXIMAL RISK
(0 a 8 Km)
AMENAZAS PRINCIPALES
MODERATE RISK
(8 a 13 Km)
AMENAZAS PRINCIPALES
HIG RISK:MUD FLOW
AMENAZAS PRINCIPALES
UNSA
IGP
GOBIERNO REGIONAL
DEFENSA CIVIL



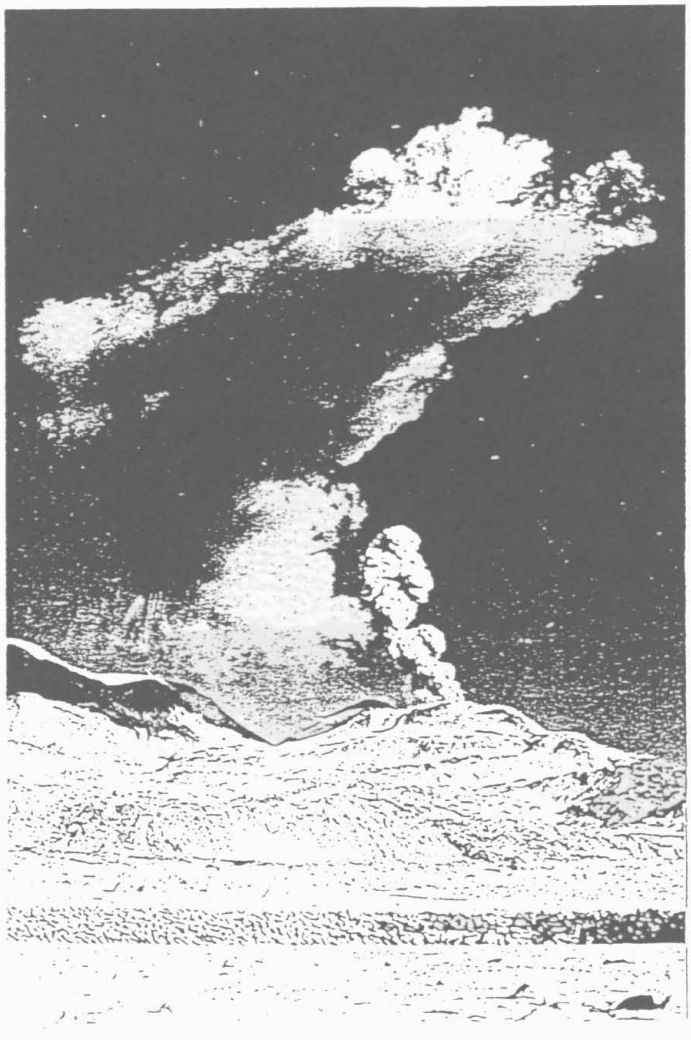
VIEW MACA TOWN: EARTHQUAKE JULY 23, 1991



THE PICTURE SHOWS THE CHURCH DESTROYED IN MACA TOWN: EARTHQUAKE JULY 23, 1991



THE PICTURE SHOWS THE SABANCAYA VOLCANO IN MAY 11, 1992



VIEW OF SABANCAYA VOLCANO IN AUGUST 1992

EARTHQUAKE IN PERU (1471 - 1991)

YEARS	PLACE	HOUR	INTENSITY	COMENTARIES
1471 - 1490	AREQUIPA	*****	VIII	Inca Tupac Yupanqui epoch. Arequipa city in ruines caused by an earthquake and the Misti vulcanos eruption.
1513 - 1515	AREQUIPA	*****	VIII	Strong landslides the sea went out and covered the beachline.
Jan.22 1582	AREQUIPA	11:30	IX	Arequipa city was destroyed. 35 dead people.
Feb.19 1600	MOQUEGUA (Omate)	05:00	XI	Seism caused by the Huaynaputina vulcano eruption. Arequipa and Moquegua cities were affected.
Nov.24 1604	AREQUIPA MOQUEGUA TANCNA	13:30	VIII	Arequipa city in ruines. Tacna and Moquegua cities was with serious damages in the houses. A Tsunami destroyed Arica city in CHILE.
Oct.21 1687	AREQUIPA	07:00	VIII	Houses and Churches were affected in Arequipa Villages of Majes and Siguas were with damages.
Aug.22 1715	AREQUIPA	19:00	VII	Small towns of high places of Arequipa were destroyed. Felt in Arica city.
Feb.06 1716	TANCA	*****	****	Destruction in Tarata town.
Jan.05 1725	AREQUIPA	08:00	VII	Most of the houses in Arequipa were destroyed.
1747	PUNO	*****	****	Caused serious damages in Ayapata town. Several dead people.
Jan.13 1784	AREQUIPA	07:36	VII	An earthquake destroyed Arequipa city 54 dead people.
Jul.10 1821	CAMANA OCONA CARAVELI	05:00	VII	Destruction in Majes Valley and cities of Camana, Caraveli, Ocona & Chuquibamba.
Sep.18 1833	TACNA	05:45	****	Destruction in Tacna damages in Arequipa, Moquegua, Torata, Sama, Locumba Ilabaya and Arcia cities. Felt in Bolivia, in the city of La Paz.

YEARS	PLACE	HOUR	INTENSITY	COMENTARIES
Aug.13 1868	AREQUIPA ARICA	16:45	XI	Destruction in the city of Arequipa. A Tsunami demolished part of the Peruvian littoral.
Nov.03 1869	AREQUIPA	19:30	VI	Damages in buildings of Arequipa.
Jul.28 1913	CHALA	01:40	****	Submarine wires were broke in front of the Coast. 17 South, 74 West Magnitude.
Aug.06 1913	AREQUIPA CARAVELI	17:13	VIII	Caraveli city in ruines. Damages in Arequipa's buildings 17 South, 74 West.
Sep.11 1914	CARAVELI	06:48	****	Damages in the city of Caraveli caused by landslides from the sorrounded hills.
Oct.11 1922	AREQUIPA CARAVELI MOLLENDO	09:50	VI VIII VI	Serious damages in Arequipa. Caraveli was destroyed. 16 South, 72.5 West Profundity, 50 Km.
Apr.09 1928	PUNO	12:30	****	Destruction of Tuata and Ayapata cities. 13 South, 69 West. Profundity:30Km. Magnitude:6.9
Oct.11 1939	AREQUIPA CHUQUIBAMBA	17:51	VII VII	Serious damages in Arequipa and Chuquibamba cities.
Aug.24 1924	AREQUIPA ICA	17:51	IX	Destruction in an area of 18,000Km. 30 dead people, 25 injuried people. 15 South, 76 West.
May 11 1948	AREQUIPA MOQUEGUA TACNA	03:56	VI VII	Damages in area of 3,500. 1 dead, 66 injuried 17 South, 71 West. Profundity: 60-70 Km.
Mar.04 1951	CHALA CARAVELI	06:18	VI	Destroyed Caraveli. 16 South, 74.5 West Profundity: 32 Km.
Oct.03 1951	TACNA MOQUEGUA	06:08	VI	Modern buildings were damaged. 17 South, 71 West. Profundity: 100Km
Jan.15 1958	AREQUIPA	14:14	VIII	Destruction in old houses. 28 dead people, 133 injuried people. 16.5 South, 72 West Profundity: 90 Km.
Jan.13 1960	AREQUIPA	10:40	VIII	Destruction houses 63 dead people and 100 of injuried people. 15.76 South, 72 West. Profundity: 82 Km.

YEARS	PLACE	HOUR	INTENSITY	COMENTARIES
Mar.09 1960	AREQUIPA	18:54	V	Felt in Puno, Jejia Mollendo and Matarani cities. 16 Sough, 72 West.
Jan.26 1964	AREQUIPA MOLLENDO UBINAS	04:00	VI V V	Several houses were damaged.
Feb.16 1979	AREQUIPA	05:09	VI	Damages in rustic houses. 18 dead people. 16.39 Sough, 72.75 West. Profundity: 53 Km
Aug.08 1987	TACNA	10:15		Material damages in houses. Epicenter at 19.022 South and 69.991 West. Profundity: 60Km.
Jul.23 1991	AREQUIPA	14:30		12 dead people, 95% of the houses were destroyed, 673 has. of farm lands were damaged. 1784 damnifiques.

SOURCE: SAN AGUSTIN NATIONLA UNIVERSITY GEOPHISIC INSITUTE

SCHEME OF A BASIC PLAN

I. OBJECTIVE OR PURPOSE

1. Objective
   What is it you expect from this Plan?
   What will the operations be oriented to when the Plan is activated?

2. Legal Frame
   Legal requirements

3. Situation
   Operations Plan
   Hazards analysis
   Factors that contribute to the eaching of the objective

4. Hypothesis or Assumptions
   Possible situations that would take place in case the hazards or disasters took place.

II. ORGANIZATION AND RESPONSABILITIES

1. Organization
   Current Organization of the community to cope deal with disasters.

2. Responsabilities
   Indicate all organizations involved in the Plan
   Point out their responsabilities

III. EXECUTION

1. Operaiton Concepts
   How are the operations going to be carried out in the prevention, emergency, rehabilitation phases respectively?

2. Tasks or Actions
   Summariza the course of action or tasks each plan-participating organizaion will carry out in each ot the phases of Disaster Management.

IV. MANAGEMENT AND LOGISTICS

1. Staff
   The available personnel to activate the plan should be indicated.

2. Logistics
   It indicates the available material resources and how will the community support services be coordinated.

3. Financing
   The available financial resources for the disaster management should be indicated.

V. DIRECTION AND CONTROL

1. Direction
   It indicate who is in charge of directing and controlling the operations, when and where this person should do this.

2. Communications
   Indicates the emergency communication systems
   Indicates the warning systems.