

Geo-Sciences and International Studies

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PRESENTATION
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Geography

Place, People and Regions

The social imprints are visible in terms of physical characteristics of the location that makes it distinctly visible marking spatial social differentiation.

Patrick Geddes worked out the concept of locational uniqueness of the place and its socio-economic ecology as distinctly visible.

People refer to economic, social and cultural organization of space.

It can be said that urban spaces viewed on an imagery are regions representing – place, work and folk.

Organization of Space

The Area/Region in such a backdrop is the **physical organization of space** that is host to a community with physical and socio-political structures.

The community is linked with the physical world in terms of economic activity. The identification of such area have a history of delimitation and **nomenclature-pays, narods, nation-state, lebensraum** and others.

The **functional and formal delimitation** is one of the problem of Area Studies.

Cognitive Area - Organization of Space

An **area is usually taken as a source of information** and its elements are used by cartographic sciences to produce knowledge.

Maps have been thematically drawn for **delimiting the cultural regions, the networks and also symbolize the various socio-cultural attributes on maps.**

The question of representation is revisited with new scientific and technological developments, viz., RS-GIS that has effectively reduced the time-lag and made **location almost synonymous to temporal attribute of action.**

The Information

There is **regular census**, sampling of population to know the organization of an area as economic space.

The social indicators are also recorded to **spatially differentiate** the cultural areas.

The processes both progressive and regressive are also recorded through **media** information.

Despite all this one really sees that **field visit** of an area is qualitatively different experience than what is derived through the host of information.

What is Remote Sensing?

Remote sensing- obtaining information about objects or areas by using electromagnetic radiation (light) without being in direct contact with the object or area.

The human eyes register the solar light reflected by these objects and your brains interpret the colours, the grey tones and intensity variations. The human eye however is limited to a small part of the total electromagnetic spectrum i.e. approximately 400 to 700 nm.

In remote sensing various kinds of tools and devices are used to make electromagnetic radiation outside this range visible to the human eye, especially the near infrared, middle infrared, thermal infrared and microwaves.

Next, these data are translated into useful information.

--STEVEN M. DE JONG & FREEK D. VAN DER MEER

Image – A tool of Representation

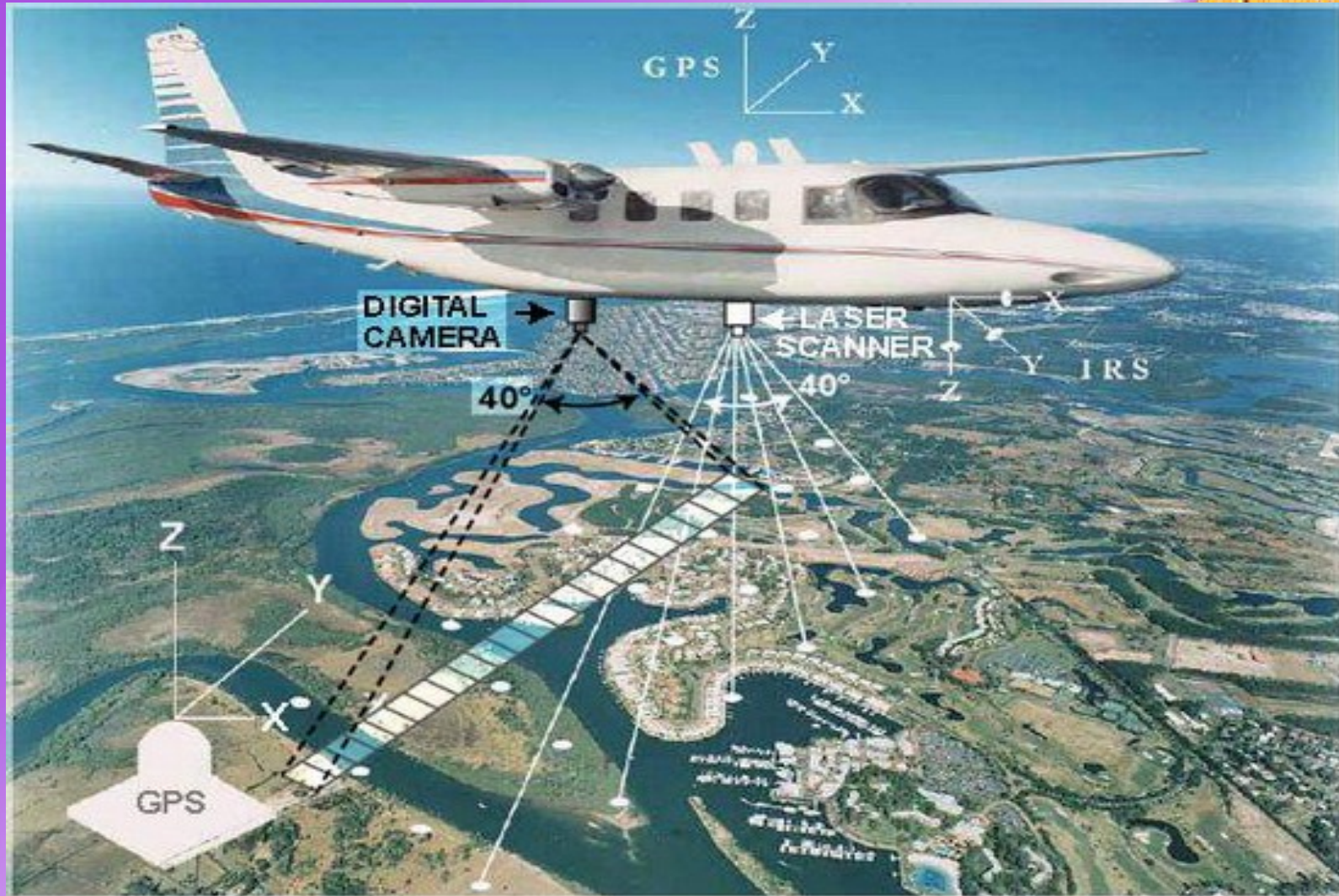


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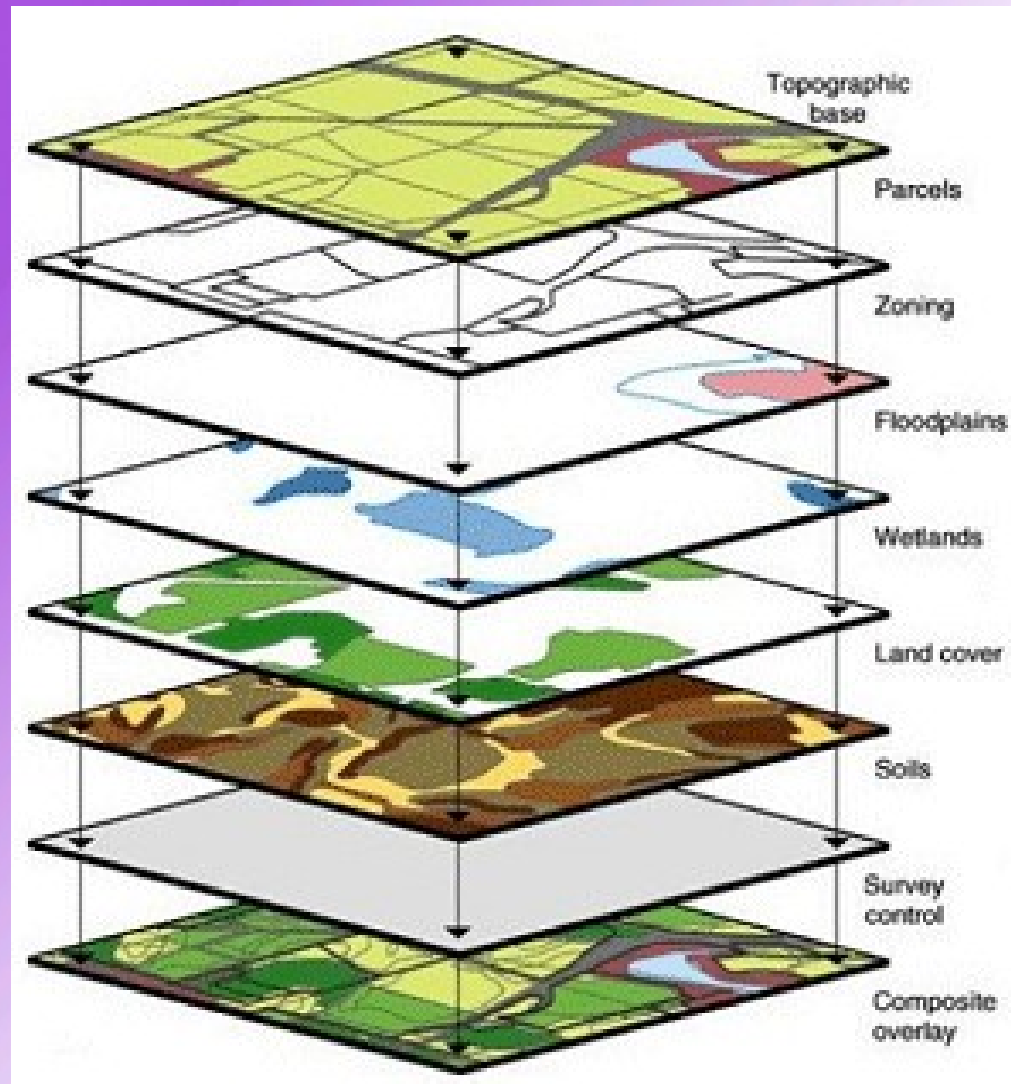
What is GIS?

Art of Decision Making- GIS acronym for Geographic Information Systems use cartographic methods to create a communication system of information that is selectively needed for processing a hierarchy of information.

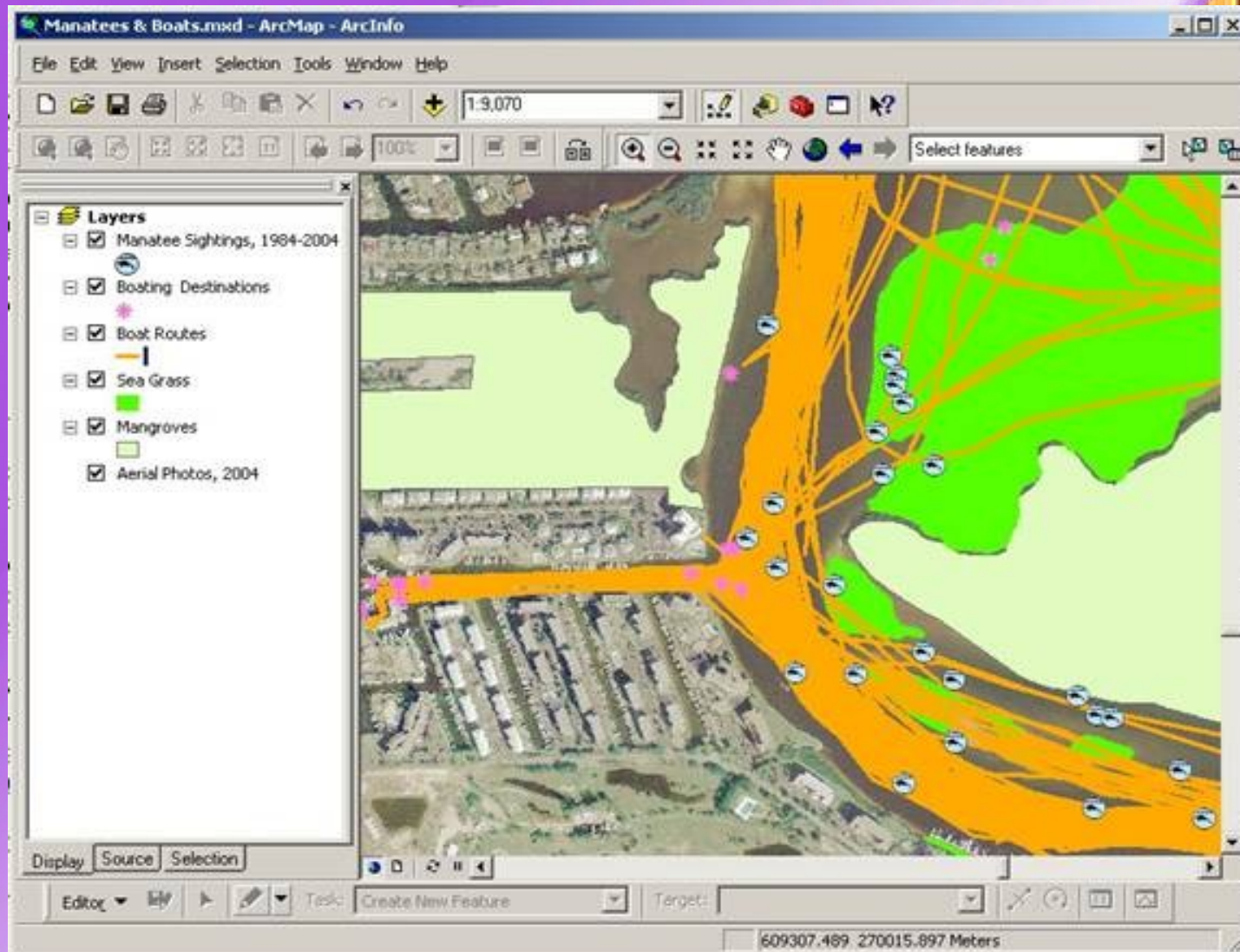
Places, people connect to each other. They form networks. There is a hierarchy of networks. They create virtual spaces and time-bound spatial planes. The representation of these thematic planes cannot be viewed by any spectrum of light. It can only be symbolized with qualitative denomination given to a symbol.

GIS is a communication of these virtual maps through computers and map representations.

Communication of Representation



Communication of Representation



Some Applications of GIS in Area Studies

Prevention of Terrorism

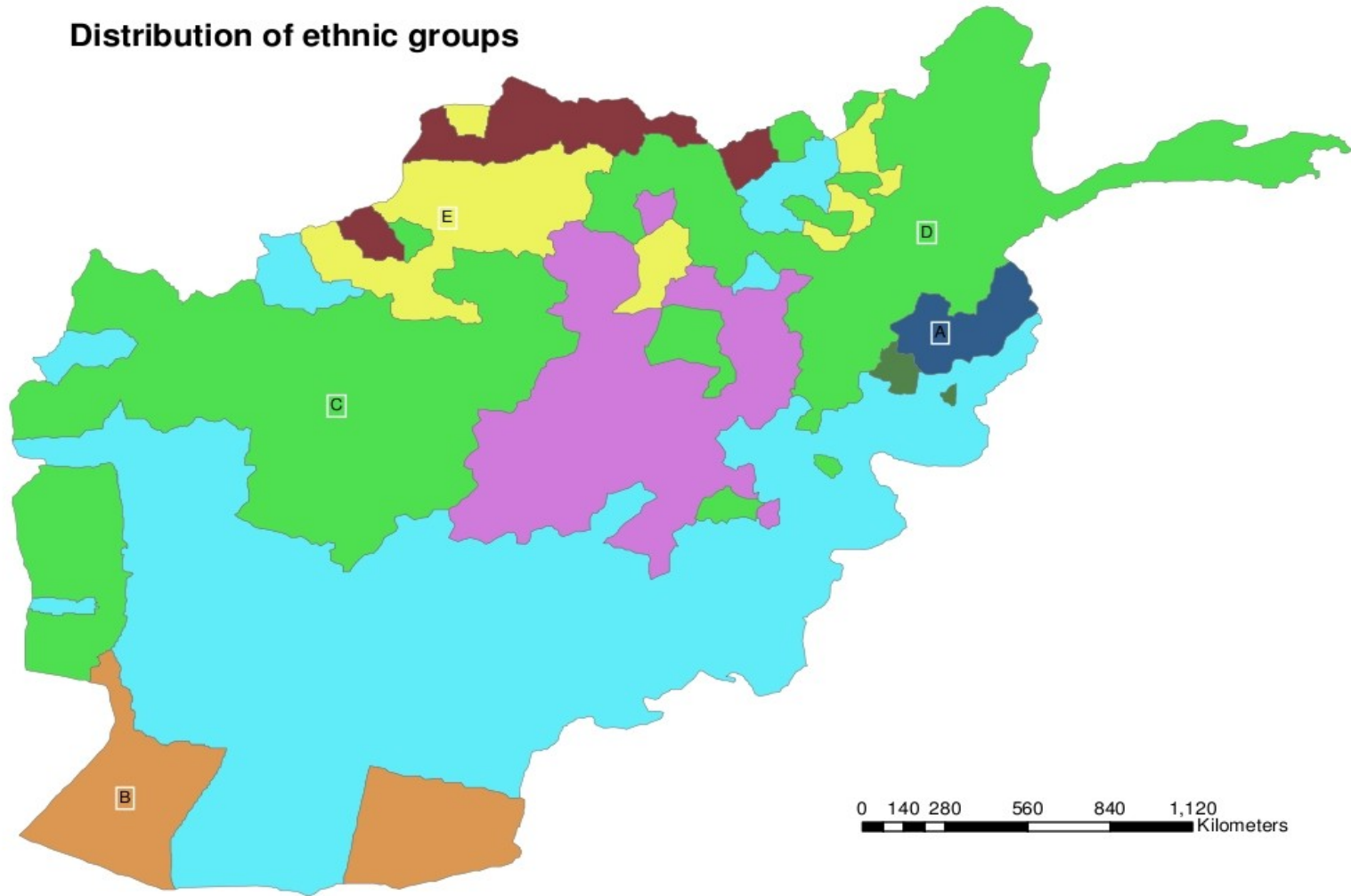
Client: National Memorial Institute for the Prevention of Terrorism

Summary: In 1999, Integral GIS received a call from a loosely connected group of people associated with the National Memorial Institute for the Prevention of Terrorism. They were developing a forensic analysis program examining the Oklahoma City Bombing.

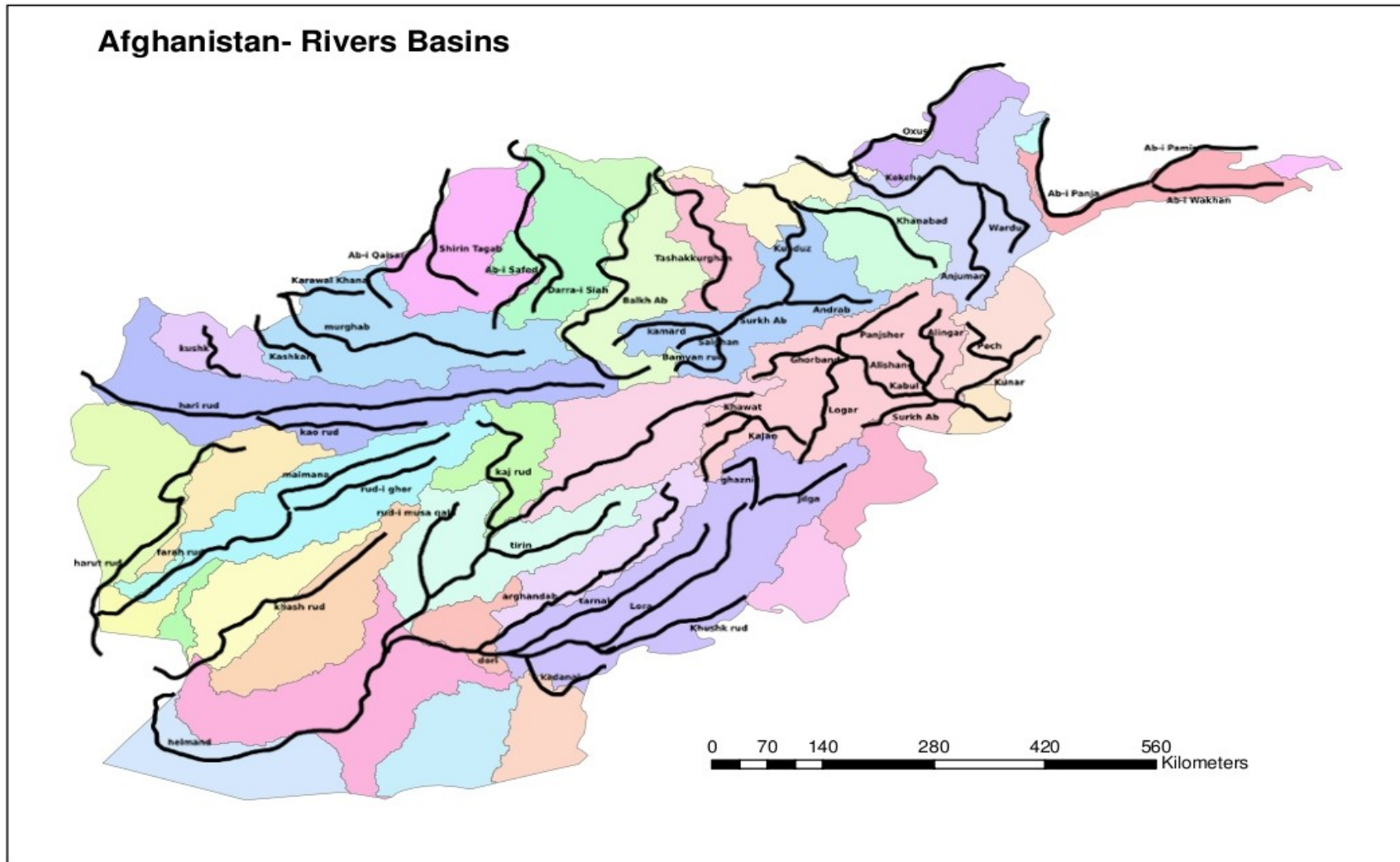
Results: Integral GIS created a suite of applications called the Oklahoma City Bombing Injury Study (OBIS).

Representing Maps

Distribution of ethnic groups



Representing Maps

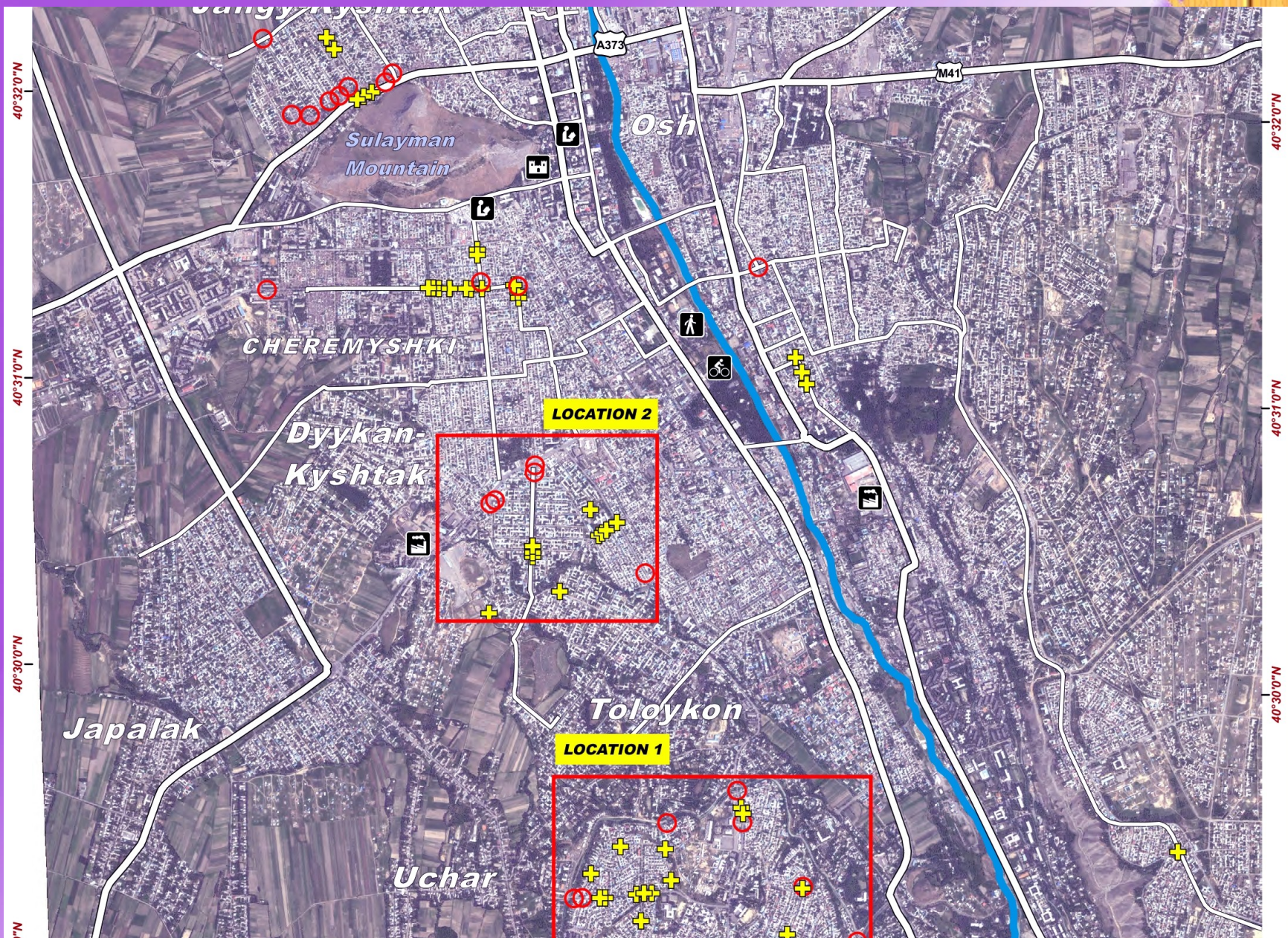


Cities and borders – Central Asia

Police stations, tax offices, the prosecutor's office and the customs terminal were set ablaze in the town of Korasuv, on the border of Uzbekistan and Kyrgyzstan, the Russian news agency Itar- Tass reported. About 5,000 people fled there Saturday from Andijon, 30 miles to the west, it said. Hundreds more fled to at least one other border-crossing site. (MAY 15, 2005)



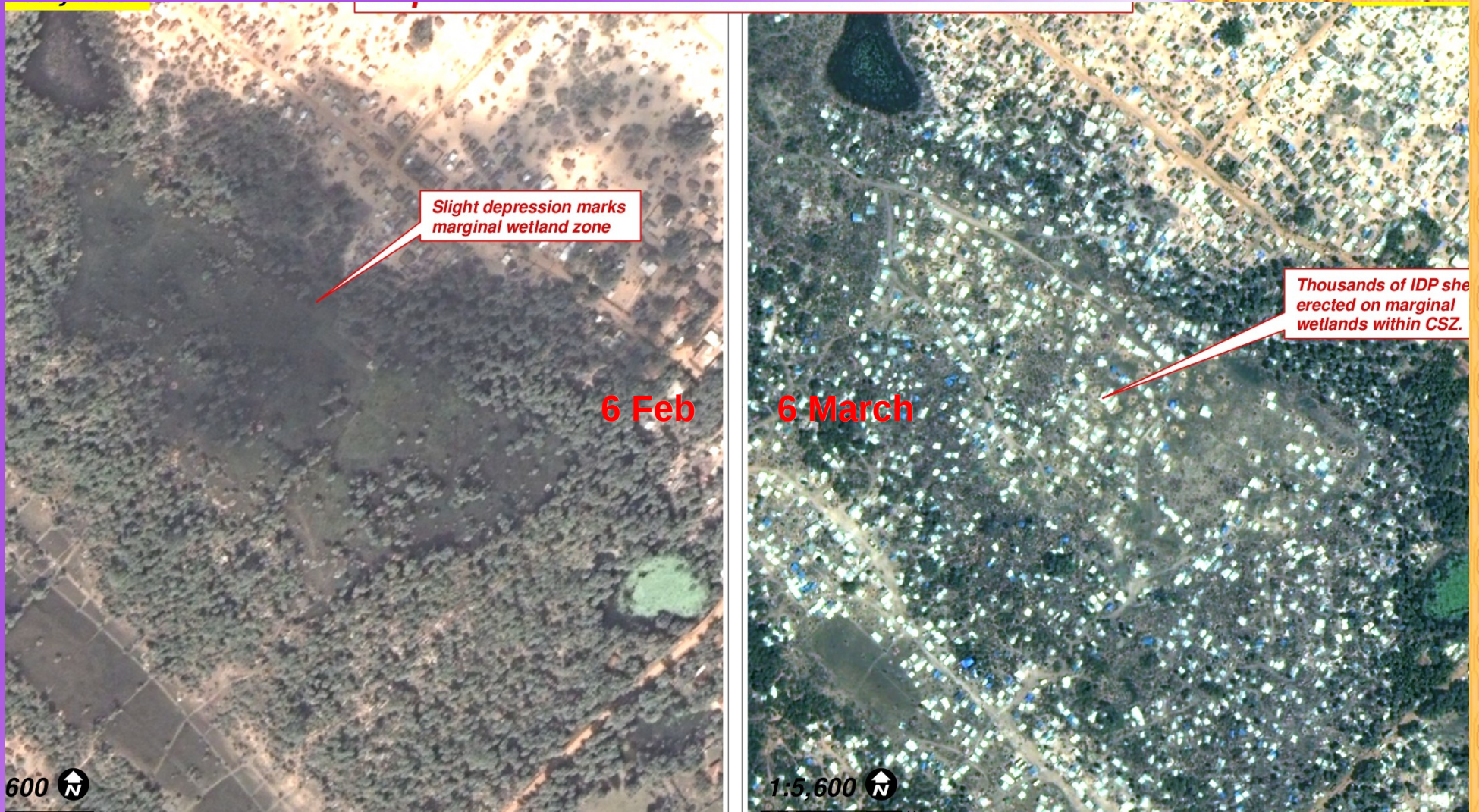
Cities and conflict – Central Asia



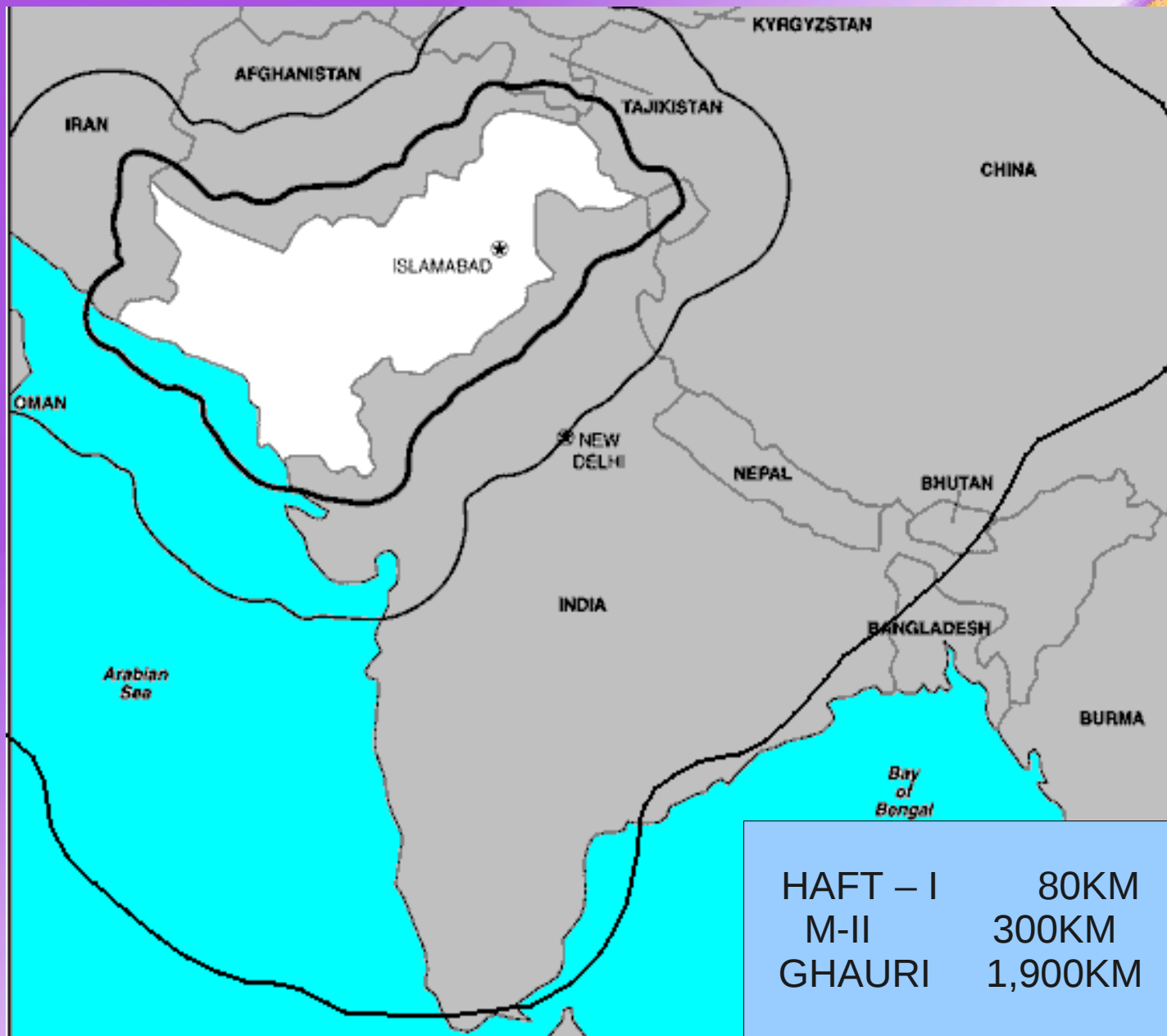
Tracing Opium cultivation in Afghanistan



Sri Lanka – IDP shelters 2009



Buffering the range - Pakistan



Nuclear sites - Pakistan



Drones – Theatre Concept of War



Drones – Theatre Concept of War



Soldier System – Theatre Concept of War

Operational Requirements:

- 1. Accurate, timely information
- 2. Maps, Topographic Display or Photographic
- 3. Universal entry & output

Capabilities:

- 1. Highly mobile, accurate and low latency

Advantages:

- 1. 360° View and Entry Point

Advantages:

- 1. Greater & Endurance Symbols
- 2. Target Identifiability

Increased Fire Power & Accuracy

Comprehensive range next generation night vision optronics

About 15,000 Soviet Afghantsy died during the decade long Afghan War and only 1600 US soldiers have during the same period.

Power and Information Technology

- Time and Space are key to power relations.
- The technological pursuits focus to jacket in more and more time and space into smaller dimensions.
- The role of technology can only be appreciated by developing research methods using them.
- Modern day international politics and the power relations are having these as sub-stratum governing all super-structure visible forms be they norms or values.

Power and Information Technology

“Under modern technological conditions, international conflict, even if short, as in the six-day Arab-Israeli War of June 1967, costs many lives and threatens escalation to nuclear war which might decimate the human race. It deserves to study to understand the causes and conditions of its initiations and escalation, and the means and procedures which might control and terminate particular conflict situations. **The world needs both a pure science and an applied science of conflict.**”

Prof. Quincy Wright
in
The Social Sciences and International Conflict.

Thanks!