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**BASICS OF**  
**REMOTE SENSING**

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# How to collect scientific data?



**In situ**



**Remotely**

# What is Remote Sensing?



- *The art of measuring an object or entity without touching it.....*
- *“The science and art of obtaining information about an object, area, or phenomenon through the analysis of data acquired by a device that is not in contact with the object, area, or phenomenon under investigation“.(L&K,1994)*

# Why Remote Sensing?



- **Systematic data collection**
- **Information about three dimensions of real objects**
- **Repeatability**
- **Global coverage**
- **The only solution sometimes for the otherwise inaccessible areas**
- **Multipurpose information**



- **Is it all...???**



# That's how Remote sensing evolved....



**1858 - first aerial photograph from hot air balloon**

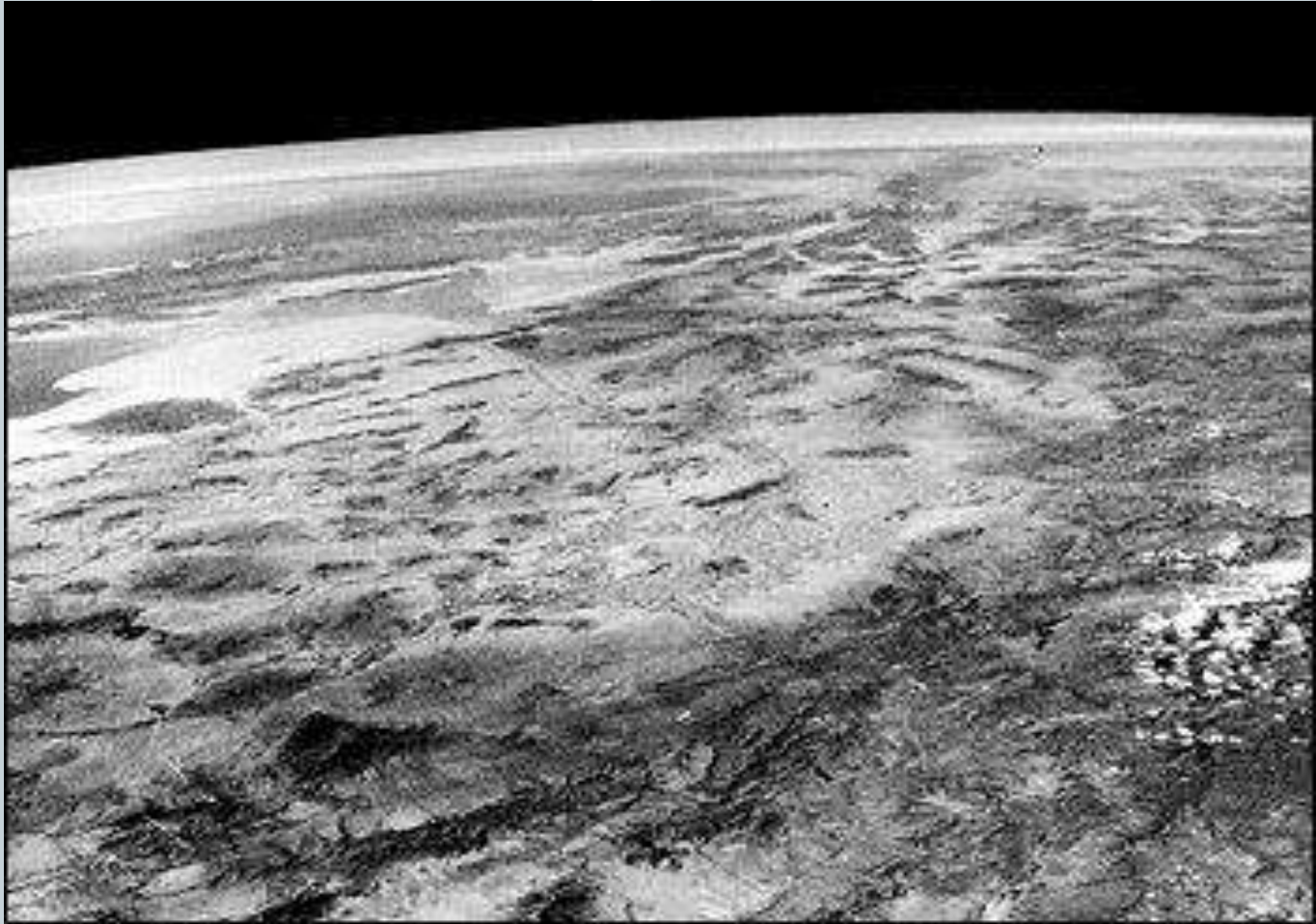




**1903 - pigeon-mounted camera patented**  
**1914-1945 - Plane mounted Cameras**



# The first space-based photo taken on March 7, 1947....







- **1972 : Launch of Landsat I**
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- **• 1970-1980 : Rapid advances in Digital Image Processing**
- **• 1980s : Development of Hyper spectral sensors**

# REMOTE SENSING PROCESS

