

Types of Pictorial Data Products

The remote sensing data products are available to the users In the form of

(a) photographic products such as paper prints, film negatives, dispositive of black and white, and false colour composite (FCC) on a variety of scales

(b) digital form as computer compatible tape (CCTs) after necessary corrections.

Broadly, satellite data products can be classified into different types based on satellite and sensor, level of preprocessing and the media. Data products acquired for the specific period can be generated if the data pertaining to the period of interest is available in archives. Depending upon the corrections applied and on the level of processing, data products can be classified as : raw data, partially corrected products, standard products, geocoded products, and precision products. The raw data is radiometrically and geometrically uncorrected data with ancillary information (stereo products for photogrammetric studies). Standard products are radiometrically and geometrically corrected for systematic errors. Geocoded products are systematically and geometrically corrected products. The systematic corrections are based on the standard survey of India toposheet and rotation of pixels to align to true north and resampled to standard square pixel.

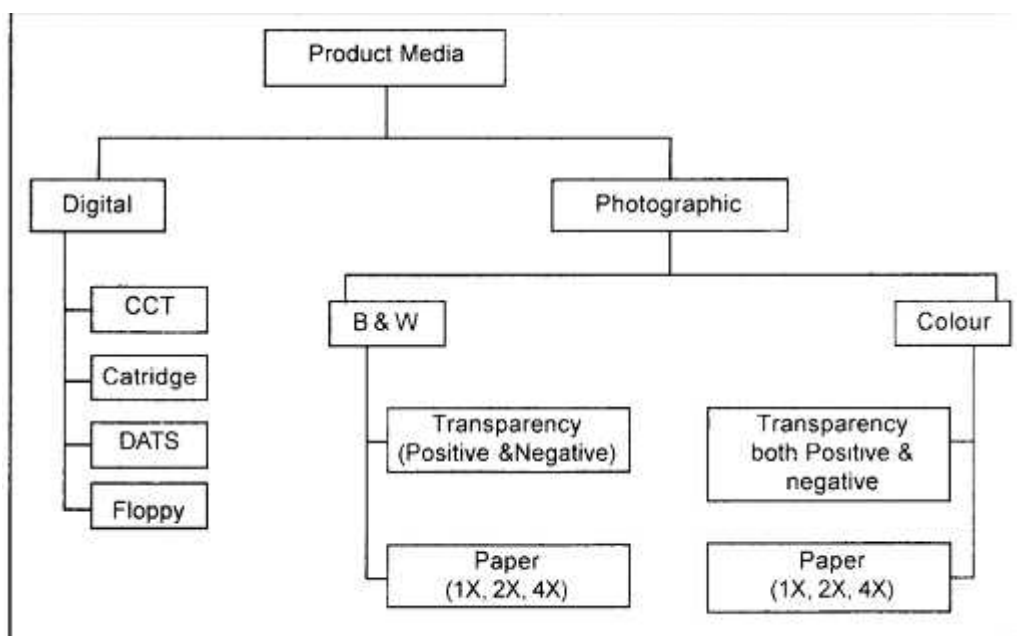


Figure Types of product media (NRSA, 1999)

Precision products are radiometric and geometric corrections refined with the use of ground control points to achieve greater locational accuracy. Data products can be broadly classified into two types depending upon the output media, as photographic and digital. The Figure shows the types of products based on media. Photographic products can either be in black and white, or colour. Further they could be either film or paper products, and in films it is possible to have either positive film or negative film. The sizes of photographic products can vary depending on the enlargement needed, and this is specified as 1X, 2X, 4X and so on.

The size of film recorders is generally 240 mm and this is the basic master output from which further products are generated. When we say colour photographic products, it generally means false colour composites (plate3). FCCs are generated by combining the data contained in 3 different spectral bands into one image by assigning blue, green and red colours to the data in three spectral bands respectively during the exposure of a colour negative. The choice of band combinations can be determined depending upon the application on hand.

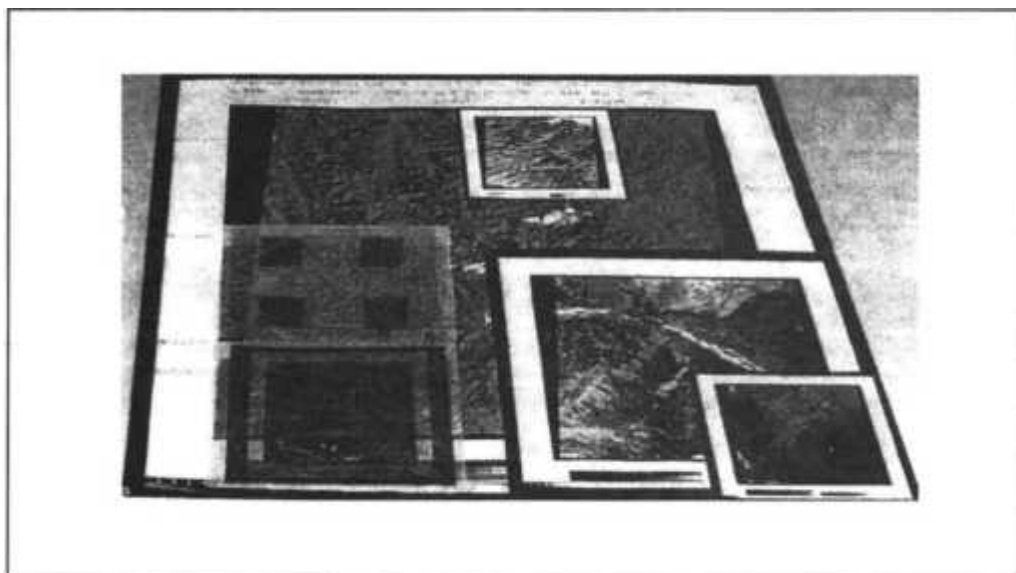


Figure Photographic products

Different types of photographic products supplied by National Remote Sensing Agency (NRSA) data centre, Govt., of India (NDC) are: Standard B/W and FCC, films. Standard products are available in colour, and black and white in the form of 240 mm films, either as negatives or positives. Figure shows the various photographic products of different sizes and different media of printing. Paper prints both Band Wand FCC are supplied in various scales. They are 1 X (contact prints) , 2X (two times enlarged) and 4X (four times enlarged) and 5X (5 times enlarged). Depending upon the enlargement the scale of the product varies (IRS handbook, 1998). The photographic products contain certain details annotated on the margins. These are useful for identifying the scene, sensor, date of pass, processing level, band combination, and so on. A list of details generally annotated on the images are given in Table. Basically, the visual interpretation of the remote sensing data is based on the False Colour Composites (FCCs). Even after the digital techniques, the results are visually interpreted. Hence, this technique is very important and requires the specific training for the users. Scientists, analysts and other users may interpret the same scene for different purposes. In fact it is one of the rare sources of information which can generate multiple themes, such as , water resources, soil, land use, and urban sprawl. The visual interpretation has become more important to create spatial database for GIS.