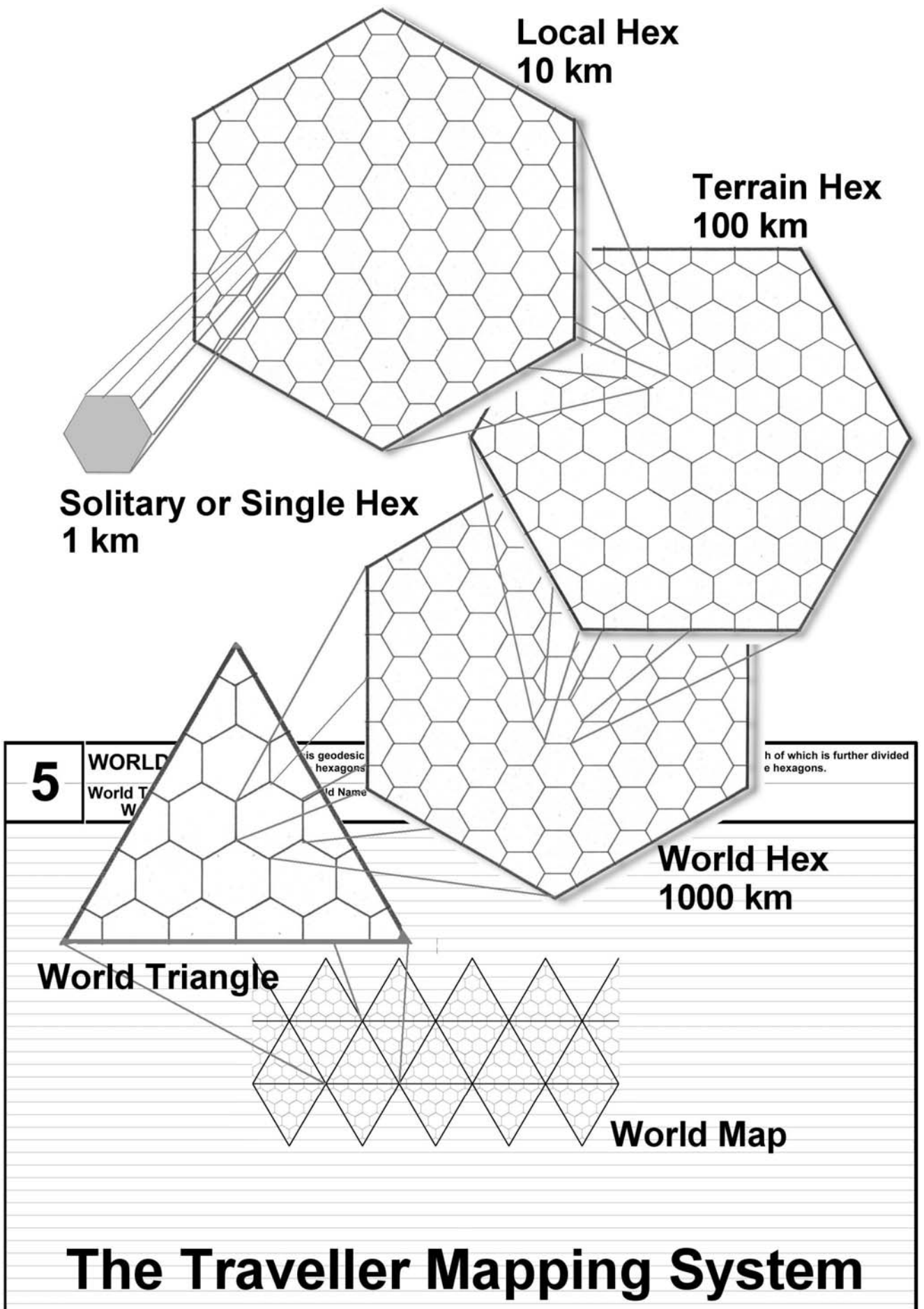
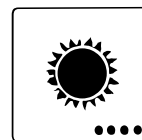






Mapping Worlds

The surface features of worlds are the key to exploring and exploiting worlds. Terrain details the character of large and small locations, controls or bars movement by vehicles, and records positions of objects and characters.

World mapping divides the surface of a world into a series of hexagons (hexes) which define location and help in computing movement. Worlds are mapped with coarse scale World Hexes grouped into triangles to form a hexagon based world map. Each of the World Hexes is further divided into Terrain hexes.

THE TRAVELLER MAPPING SYSTEM

Worlds (planets or satellites) are mapped with a hierarchy of hexes which record location, terrain, and other details.

Hexagons. Mapping is based on six-sided hexagons. Hexagon cells for mapping have long been a foundation of wargaming. They allow more flexibility than square based mapping: distance can be counted more easily and more accurately, and more directions of movement are possible.

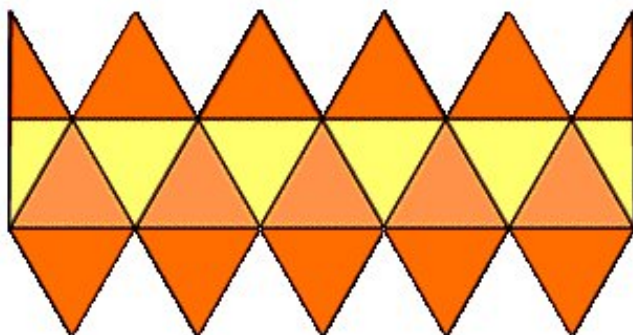
The System Hierarchy

The **Traveller Mapping System** (TMS) is a hierarchy of hexagon-based maps created to describe and detail worlds as the information is needed in the course of adventures. The TMS hierarchy consists of:

The World Map. The World Map is a flattened icosahedron (a twenty-sided regular polygon the same shape as a 20-sided die) to represent the spherical world surface.



The twenty triangles of the icosahedron are flattened into a map for ease of printing and reading.



On this map, the top is the North Pole (the bottom is the South Pole) and the left (West) side wraps to touch the right (East) side. The East and West edge triangles are divided to more easily fit on the page.

The World Triangle. Each of the triangles of the World Map is (roughly) a Continent or an Ocean.

The World Hex (1000 km). The surface of the world is

divided into World Hexes of constant size: 1000 km in diameter. While all worlds have the same number of World Triangles (twenty), larger worlds have more World Hexes than smaller worlds.

The Terrain Hex (100 km). The World Hex is divided into 75 Terrain Hexes. Each is 100 km in diameter and allows recording or interacting with terrain in greater detail.

The Local Hex (10 km). The Terrain Hex is divided into 75 Local Hexes. Each is 10 km in diameter and allows very fine scale mapping of locations.

The Single Hex (1 km). The Local hex is divided into 75 Single Hexes, each 1 km in diameter. The Single Hex is the ultimate mapping hex.

Pents. Technically, the hexagons where five Triangles meet are pentagons (or pents). They are treated in most respects like World Hexes.

There are twenty Pents on a World Map.

Movement Using The Traveller Mapping System.

The TMS allows easy distance counting. All hex distances are multiples of 10 km. A route counted in World Hexes gives the distance in thousands of kilometers; a route counted in Terrain Hexes gives the distance in hundreds of kilometers.

Tracing Routes. Any number of routes can be traced from center-of-hex to center-of-hex.

Crossing Gaps. The gaps between World Triangles are zero-distance. A route can be traced across a gap to the other half of a hex with no additional distance cost.

TERRAIN

Terrain is the nature of individual surface features on a world. Terrain governs, enhances, or obstructs movement; it identifies important resources; it reflects points of interest or danger.

Terrain Types. A selection of 36 Terrain types details most surface feature situations to be encountered.

Terrain Symbols. The Terrain Symbol chart provides hand-drawing compatible map symbols for use with TMS.

Terrain Numbers. The 36 Terrain Types are also identified by numbers using only the digits 1 through 6. The available numbers 11 through 66 can be generated randomly (when needed) using two dice.

Terrain Effects. The specific effects of terrain are detailed in the Terrain chapter.

MAPPING WORLDS

Worlds are mapped using the principals and charts of the Traveller Mapping System.

The Three Mapping Principles

The **Traveller Mapping System** is based on three Principles.

- **Map Only As Really Necessary.**
- **Map At The Highest Possible Scale.**
- **Involve The Players.**

Map Only As Really Necessary. The charts allow random selection of hexes with a few die rolls. There is no need to create complete or comprehensive maps before they are needed.

Characters on a ship entering a system can consult a UWP and databases for a general idea about the local world. The UWP provides enough basic information for most purposes.

Map At The Highest Scale Possible. Because terrain can be created as needed, reference maps for players should be enough to provide them information without needless detail. The twenty triangles of a World Map can give a basic idea of continents and oceans.

More detail and specific maps are called for only when the characters see a need.

Involve The Players. When map details are required, recruit the players to make die rolls which locate or identify terrain or details.

When a character says, "I want to see more near our destination," he becomes more involved in the process. Ships scanners, world maps in Library Data, or conversations with non-player characters can provide the needed information. Once that process has been resolved, the referee provides a blank World Hex (or Terrain Hex, or Local Hex) map and the player, with guidance from the referee, creates and enters t

The Referee's Responsibility

The referee can (and should) determine specific terrain details which are important to an adventure. He can plan and map the strategic base the enemy will defend, or note the details of the strange alien city at the edge of the remote system.

But, the other details: the other worlds in the system, the terrain near the starport, or strange mountain valleys along the way are all easily generated by involving the players as the information becomes necessary.

The Three Principles have benefits for the Referee. The burden of creating terrain is shared with the players, and when used properly transforms from a burden to an element of the adventure. Each new element of terrain involves the players and their imaginations; it is often the players who then say, "Let's see what is past that hill." Or "Why is that valley so long?" and those questions provide more support for an interesting adventure.

CREATING WORLD MAPS

The Mapping Charts detail the mapping process. The Charts include:

- Chart 1. World Dimensions
- Chart 2. The World Map (Example)
- Chart 3. The World Triangles.
- Chart 4. The World Hex.
- Chart 5. The Terrain Hex.
- Chart 6. The Local hex.
- Chart 7. The Single Hex.
- Chart 8. Terrain Types.
- Chart 9. Terrain Symbols (by hand).
- Chart 10. Randomly Selecting Places.
- Chart 11. Creating World Maps.
- Chart 12a. Populating World Hexes-1.
- Chart 12b. Populating World Hexes-2.
- Chart 13a. Populating Terrain Hexes-1.
- Chart 13b. Populating Terrain Hexes-2.
- Chart 14a. Populating Local Hexes-1.
- Chart 14b. Populating Local Hexes-2.

Absolute Mapping

It is possible to begin with a blank map and follow the process to completely define every hex and all terrain for a world. The charts make this process possible. Chart 10 governs creating the World Map, and Charts 11a and 11b govern filling in the Terrain Hexes of a World Hex.

Sensor Mapping

Space Sensors can provide the information available to for the creation of maps as it becomes available.

At each distance, available sensors produce information (in an interactive process involving the referee, the player, the tables, and dice).

The Space Sensors Charts shows the information that ordinary sensors can acquire in the course of operation.