



**Tobin Map Data Products
Feature Class Standards
*August 21, 2008***

**Tobin Map Data Products:
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Introduction

This document will explain the feature classes for each of the Tobin Map Data products. The specific class code, type code, and description will be presented for each feature class.

Map Data Products:

Carter and Jeffersonian Survey

The Carter Survey data is composed of the land grid used in Kentucky and Tennessee. The Carter Survey utilizes a meridian, township, range and section grid. Carter Survey is a projected grid.

The Jeffersonian Survey data is composed of the land grid predominantly used throughout the United States. The Jeffersonian survey utilizes a meridian, township, range and section grid. Jeffersonian Survey is not a projected grid and can become very irregular in places.

Feature classes:

While the land grid is not hierarchically bound by the county lines, for the purposes of delivery and selection, Tobin has artificially introduced breaks in the Carter and Jeffersonian survey at the county lines. The Carter & Jeffersonian Survey consists of three feature classes:

<u>Feature Class</u>	<u>Class Code</u>	<u>Type Code</u>	<u>Description</u>
Sections	1	12	Jeffersonian County Section
	1	15	Carter County Section
	1	80	Vacancy
Townships	1	14	Jeffersonian County Township
	1	16	Carter County Township
	1	80	Vacancy
Districts (OH Only)	2	3	District

The listed class and type codes above indicate the Tobin data features that are included this product and its associated data layers. These may not be the code values that are written as attributes in each of the following formats.

Formats:

InfoBase, TDRBM, Shapefile, Export

File Specifications:

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Data Structures:

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Shapefile Data Structure and Attribute Comparison

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Texas Survey

The Texas survey is comprised of a series of irregular grids. Many are discontinuous and do not cover the entire state. In some areas there has been multiple land surveys conducted. The survey that is considered to be secondary is placed in a series of layers referred to as Junior Survey. The structure of the Junior Survey matches that of the Senior Survey. Another independent grid utilizing league and labor features also overlaps the other surveys. A grid of Bay Tracts is utilized to define areas in the bays of the coastal counties.

Feature classes:

While the League/Labor and Bay Tract grid is not hierarchically bound by the county lines, for the purposes of delivery and selection, Tobin has artificially introduced breaks in the League/Labor and Bay Tract survey at the county lines. The Texas survey consists of 11 feature classes:

Feature Class	Class Code	Type Code	Description
Abstract	1	5	Texas Abstract
	1	80	Vacancy
Section	1	4	Texas Section
	1	80	Vacancy
Block	1	3	Texas Block
	1	80	Vacancy
Survey	1	30	Texas Survey
	1	80	Vacancy
JS_Abstract	1	22	Texas Junior Survey Abstract
JS_Section	1	23	Texas Junior Survey Section
JS_Block	1	25	Texas Junior Survey Block
JS_Survey	1	31	Texas Junior Survey Survey
Labor	1	27	Texas Labor
League	1	28	Texas League
Bay_1	1	20	Texas Bay Tracts
Bay_2	1	32	Texas Bay Tracts
Bay_3	1	33	Texas Bay Tracts

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Texas Subdivisions

The Texas Subdivision data is comprised of an irregular grid defining the lots and blocks. Many are discontinuous and do not cover the entire state.



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Feature classes:

The Texas Subdivision data consists of one feature class:

Feature Class	Class Code	Type Code	Description
Subdivision	1	26	Texas Subdivisions

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Offshore Survey – “State” & “Federal” Water

The Offshore Survey data is composed of a projected grid of Area & Block. Tobin subdivides the data into two products, “State Water” and “Federal Water”. However the designation that Tobin uses does not correspond to the actual State and Federal jurisdiction, but more to the continental shelf and deep water boundary.

Some of the 24K culture extends out onto the continental shelf, over Tobin’s “State Water” data. This primarily consists of shipping lanes and jurisdictional boundaries. The 24K culture is delivered with the survey where it is present as linear features and annotation.

The states and counties do not extend into the offshore. However, the American Petroleum Institute (API) extended their numbering scheme used to identify wells to the offshore. Onshore, this scheme incorporates a 2-digit state code and 3-digit county code. The Minerals Management Service (MMS) has broken the offshore grid into several Outer Continental Shelf (OCS) Protraction Areas. The API assigned a unique 5 digit code to each similar to the state/county codes of the onshore. Tobin has this convention and delivers data by OCS Protraction Area, often referred to as “Offshore Counties” because of the API convention.

The directory and naming conventions incorporate a 2-character state code. This code does not utilize the API numeric code, but something similar to a 2-character postal code. The 2-character “state” codes are defined below:

Region	API Code	Tobin Code
Texas Shelf	42	TX
Louisiana Shelf	17	LA
Mississippi State Waters	23	MS
Alabama State Waters	01	AL
Deep Water Gulf of Mexico	60	FD



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Feature classes:

The Offshore Survey consists of two (2) feature classes, or three (3) if you include the optional 24K Culture:

Feature Class	Class Code	Type Code	Description
Areas	1	6	OCS Protraction Areas
Blocks	1	7	OCS Blocks
1:24k Culture (Where present)	30	7	Municipal Boundary (3-mi. line)
	30	10	Island
	30	13	Ocean area (Coastline)
	30	22	Federal reservation (Fairways)

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Eastern States Survey

The Eastern States Survey data is composed of districts for the states of Connecticut, Massachusetts, Maine, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and West Virginia. The Eastern States Survey Feature (Districts) is available throughout the states listed here.

Feature classes:

The Eastern States Survey consists of one feature class:

Feature Class	Class Code	Type Code	Description
Districts	2	3	District

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Counties & States

The States & County boundaries include all of the lower 48 states. These boundaries have been extended for all coastal counties to as to include the region of the offshore under state jurisdiction.

Feature classes:

The States & Counties consists of two feature classes:

Feature Class	Class Code	Type Code	Description
States	2	1	State boundaries
Counties	2	2	County boundaries

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1:24k Culture

The 24k Culture was created by selectively digitizing USGS 1:24000 Topo quads. The 1:24k Culture is discontinuous and does not cover the entire lower 48 states.

Feature classes:

24K Culture is often segregated into point and line feature classes:

Feature Class	Class Code	Type Code	Description
Culture_line	30	7	Municipality
	30	8	River
	30	9	Stream
	30	10	Island
	30	11	Lake
	30	12	Old riverbed
	30	13	Ocean
	30	14	Federal highway
	30	15	State highway
	30	16	Road
	30	17	Pipeline
	30	18	Railroad



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30	22	Federal reservation
30	23	State reservation
30	24	Transmission line
30	26	Un-surveyed

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1:100k Culture

The 100k Culture was derived from the USGS DLG data. The 1:100k Culture covers the entire lower 48 states.

Feature classes:

100k Culture is often segregated into point, line and polygon feature classes:

Feature Class	Class Code	Type Code	Description
Culture_point	3	30	Rock or group of rocks
	3	31	Rock or group of rocks, submerged
	6	10	River mile mark
	6	55	Falls
	6	60	Upper origin of stream
	6	61	Upper origin of stream at water body
	6	62	Stream entering water body
	6	63	Stream exiting water body
	6	64	Sink
	6	70	Spring or seep
	6	71	Spring or seep, hot or mineral
	6	80	Non-flowing well
	6	81	Non-flowing well, dry
	6	82	Non-flowing well, hot or mineral
	6	83	Non-flowing well, salt
	6	90	Flowing well
	6	91	Flowing well, intermittent
	6	92	Flowing well, hot or mineral
	7	15	Gate (flood, tidal, head, or check)
	7	30	Canal lock or sluice gate
	7	35	Levee
	7	40	Gauging station
	7	43	Pumping station



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	7	46	Water intake
	7	65	Penstock
	7	66	Penstock, in tunnel
	7	70	Siphon
	7	71	Siphon, overpassing
	7	72	Siphon, underpassing
	7	75	Riser
	7	80	Fish ladder
	7	85	Windmill
	7	86	Windmill, dry
	7	87	Windmill, salt
	7	90	Cistern
	9	60	Geyser or vent
	12	80	Cloverleaf or interchange
	12	85	Traffic circle
	12	90	Crossing
	13	0	Gate
	13	10	Cul-de-sac
	13	20	Dead end
	14	0	Bridge abutment
	14	50	Tunnel portal
	15	10	Toll gate or toll plaza
	15	20	Weigh station or agricultural
	18	60	Crossover
	19	10	Turntable
	19	20	Roundhouse
	19	30	Railroad station
	20	0	Bridge abutment
	20	10	Tunnel portal
	20	20	Drawbridge
	20	30	Railroad ferry crossing
	23	20	Tower on transmission line
	23	40	End of transmission linear power station, substation, or hydroelectric plant
	23	60	Power station
	23	61	Nuclear power station
	23	70	Hydroelectric Plant
	23	80	Substation
	24	20	End of pipeline at oil or gas
	24	30	End of pipeline at refinery, depot, or tank farm
	24	50	Pumping station or compressor station
	24	60	Measuring station or valve station
Culture_line	3	5	Danger curve
	3	8	Sounding datum
	3	11	Low-water line
	3	14	Beach
	3	25	Shoal
	3	35	Coral reef or rock reef
	3	36	Coral reef or rock reef, exposed at low water
	3	50	Channel or boat trail
	3	51	Channel or boat trail, navigable
	3	52	Channel or boat trail, submerged
	5	0	Shoreline
	5	1	Shoreline, intermittent
	5	20	Man-made shoreline
	5	40	Indefinite shoreline
	5	60	Apparent shoreline
	6	0	River
	6	1	River, intermittent
	6	2	River, submerged



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6	20	Stream
6	21	Stream, intermittent
6	22	Stream, submerged
6	30	Wash or ephemeral drain
6	40	Braided stream
6	50	Rapids
7	0	Dam or weir
7	1	Dam or weir, earthen construction
7	2	Dam or weir, carrying a road
7	3	Dam or weir, earthen construction and carrying a road
7	10	Spillway
7	20	Canal or ditch
7	21	Canal or ditch, navigable
7	22	Canal or ditch, intermittent
7	23	Canal or ditch, abandoned
7	50	Aqueduct or water tunnel
7	51	Aqueduct or water tunnel, elevated
7	52	Aqueduct or water tunnel, overpass
7	53	Aqueduct or water tunnel, in tunnel
7	54	Aqueduct or water tunnel, underground
7	55	Aqueduct or water tunnel, abandoned
7	60	Flume
7	61	Flume, elevated
7	62	Flume, abandoned
9	50	Glacial crevasse
12	10	Class 1 road
12	11	Class 1 road, elevated
12	12	Class 1 road, on drawbridge
12	13	Class 1 road, in tunnel
12	14	Class 1 road, overpassing
12	15	Class 1 road, underpassing
12	20	Class 2 road
12	21	Class 2 road, elevated
12	22	Class 2 road, on drawbridge
12	23	Class 2 road, in tunnel
12	24	Class 2 road, overpassing
12	25	Class 2 road, underpassing
12	30	Class 3 road
12	31	Class 3 road, elevated
12	32	Class 3 road, on drawbridge
12	33	Class 3 road, in tunnel
12	34	Class 3 road, overpassing
12	35	Class 3 road, underpassing
12	36	Class 3 road, in service facility
12	40	Class 4 road
12	41	Class 4 road, underpassing
12	42	Class 4 road, in ford
12	43	Class 4 road, in service facility
12	50	Class 5 road
12	51	Class 5 road, 4-wheel drive
12	52	Class 5 road, old railroad grade
12	53	Class 5 road, in ford
12	70	Road in transition
12	75	Nonstandard section of road
14	10	Drawbridge
14	20	Covered bridge
14	30	Footbridge
14	40	Road ferry crossing
15	0	Perimeter of parking area
18	0	Railroad
18	1	Railroad, underpassing



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	18	2	Railroad, overpassing
	18	3	Railroad, in tunnel
	18	4	Railroad, in snowshed
	18	5	Railroad, elevated
	18	6	Railroad, on drawbridge
	18	20	Siding or spur
	18	21	Siding or spur, underpassing
	18	22	Siding or spur, overpassing
	18	23	Siding or spur, in tunnel
	18	24	Siding or spur, in snowshed
	18	25	Siding or spur, elevated
	18	26	Siding or spur, on drawbridge
	18	40	Carline
	18	41	Carline, abandoned
	18	42	Carline, dismantled
	18	50	Cog railroad, incline railway
	18	51	Cog railroad, incline railway
	18	52	Cog railroad, incline railway
	19	0	Yard
	23	0	Power transmission line
	23	1	Power transmission line, underground
	24	0	Pipeline
	24	1	Pipeline, above ground
	24	2	Pipeline, submerged
	25	0	Telephone or telegraph line
	25	20	Aerial tramway, monorail, ski lift
	25	40	Bridge
	25	50	Tunnel
	26	0	Airport or landing strip
	26	1	Airport or landing strip, unimproved surface
	26	30	Heliport
	26	60	Seaplane anchorage
	26	70	Seaplane ramp or seaplane landing area
	26	90	Launch complex
	28	0	Null
	28	1	Building
	28	2	Cemetery
	28	3	Church
	28	4	Hospital
	28	5	Locale
	28	6	Mine
	28	7	Oilfield
	28	8	Other
	28	9	Populated place
	28	10	School
	28	11	Tower
	29	5	Ridge
	29	6	Summit
	29	9	Pther
	29	10	Unknown
	29	21	Arch
	29	22	Benchmark
	29	23	Bend
	29	25	Cave
	29	29	Gap
Culture_polygon	3	0	Ocean, bays, estuary, gulf, or sea
	3	1	Ocean, bays, estuary, gulf, or sea navigable
	3	20	Flats (tidal, mud, sand, or gravel)
	3	40	Sand in open water
	3	55	Gut



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3	60	Harbor
3	65	Carolina bay
3	70	Obstruction area in water area
3	75	Spoil area, dredged area, or dump area
3	80	Holiday area
4	0	Lake or pond
4	1	Lake or pond, salt
4	2	Lake or pond, intermittent
4	3	Lake or pond, dry
4	10	Reservoir
4	20	Area to be submerged
4	30	Inundation area
4	40	Gravel pit or quarry filled with water
4	50	Industrial water impoundment
4	60	Sewage disposal pond or filtration plant
4	70	Tailings pond or settling basin
7	95	Covered reservoir
8	0	Salt evaporator
8	10	Soda evaporator
8	20	Fish hatchery, fish farm, or fish pond
8	30	Duck pond
8	40	Rice field
8	50	Cranberry bog
9	0	Marsh, wetland, swamp, or bog
9	1	Marsh, wetland, swamp, or bog, submerged
9	2	Marsh, wetland, swamp, or bog, wooded
9	3	Marsh, wetland, swamp, or bog, submerged and wooded
9	4	Marsh, wetland, swamp, or bog, salt
9	5	Marsh, wetland, swamp, or bog, submerged and salt
9	20	Mangrove area
9	40	Glacier or snowfield
9	70	Alkali flat
27	0	Null
27	1	State & national parks & forests
27	2	Military reservation
27	3	Indian reservation
27	4	Wildlife management areas
27	5	Grants, ranchos & others
27	6	Federal reservations
27	7	State reservations
27	8	Unknown, other
29	0	Null
29	1	Area
29	2	Island
29	3	Plain
29	4	Range
29	7	Valley
29	8	Woods
29	24	Cape
29	26	Cliff
29	27	Crater
29	28	Flat
29	30	Isthmus
29	31	Lava
29	33	Pillar
29	34	Slope
29	35	Basin



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