



Additional triangulation in this outlined area will be found on triangulation diagram 6449

U.S. DEPARTMENT OF COMMERCE
 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
 NATIONAL OCEAN SURVEY
 WASHINGTON, D.C.
 April 1977

TRIANGULATION DIAGRAM

(Not For Navigational Purposes)

- HORIZONTAL CONTROL**
- Monument Point or Located Object
 - Station marked with the number of numbered stations
 - Station marked with the name of measured base - Electronic or Taped
 - Line of triangulation observed
 - - - Line of triangulation observed from one end only
 - Measured Length - Electronic

Information may be obtained from the Director, National Geodetic Survey Information Center, National Ocean Survey, N.O.S.A., Rockville, Md. 20852

UNITED STATES - WEST COAST
 WASHINGTON
PUGET SOUND
 SEATTLE TO OLYMPIA



KEY TO NUMBERED STATIONS

FOR
TRIANGULATION CHART 6460
BY THE
NATIONAL GEODETIC SURVEY

1 DUMARISH ALKI N E BASE
1 DUMARISH 2 ALKI N E BASE 2
1 DUMARISH RR 3
2 ROBINSON PT LIGHTHOUSE
3 TACOMA ST JOSEPH HOSPITAL HIGHEST CROSS
4 TACOMA CENTRAL HIGH SCHOOL CENTER OF TOWER
5 FLETCHER HIGHEST WATER TOWER
6 LAROTA WHARF HOUSE
7 WEST SEATTLE HIGH SCHOOL FLAGPOLE
8 TACOMA COLLEGE OF PUGET SOUND FLAGPOLE
9 TACOMA LINCOLN GRADE SCHOOL FLAGPOLE
10 FIRST PRESBYTERIAN CHURCH SPIRE
10 TACOMA ASTROPHORIC STATION
11 TACOMA CITY MALL
12 TACOMA COURTHOUSE
13 SMELTER STACK 300 FT 1905
13 RUSTON AMERICAN SMELTING AND REFINING CO STACK
14 BROWN PT L M 1905
14 BROWN POINT LIGHTHOUSE 1935
15 STEELACORN CHURCH STEEPLE
16 ITSARE SHOAL BUOY
17 OLYMPIA WATERFRONT BRICK STACK
17 OLYMPIA INCINERATOR
18 OLYMPIA HARBOR RANGE FRONT LIGHT 1936
18 OLYMPIA INNER RANGE FRONT LIGHT 1928
19 JOHNSON POINT L M FLAGPOLE
20 OLYMPIA SHOAL LIGHT 1928
20 OLYMPIA SHOAL LIGHT 1936
21 OLYMPIA ENTRANCE LT 1928
21 OLYMPIA CHANNEL LIGHT 1936
22 OLYMPIA INNER RANGE FRONT LIGHT 1936
22 OLYMPIA HARBOR RANGE FRONT LIGHT 1928
23 OLYMPIA SCHOOLHOUSE SPIRE
24 OLYMPIA STEEL STACK
24 OLYMPIA GEORGIA PACIFIC PLYWOOD CO SOUTH STACK
25 OLYMPIA BUCHANAN LUMBER CO BRICK STACK
26 OLYMPIA OLD CAPITOL SPIRE
27 CLIFF
28 TACOMA J ST STANDPIPE
29 BOX
30 CUPOLA
31 SPAN
31 TACOMA HARBOR PUYALLUP WATERWAY BRIDGE CONTROL HOUSE
32 LINE
33 LET
33 ARMY
33 JETTY
34
35 TACOMA CITY WATERWAY EAST ENTRANCE LIGHT
35 SHIP
36 CRANE
37 TANK
38 WHITE STACK ON SKYLINE
39 RESERVOIR TANK
39 NORTH TRANSMISSION TOWER
40 SOUTH TRANSMISSION TOWER
40 TOWER LIGHT
41 TANK RED
42 HIGH SCHOOL FLAGPOLE
42 STADIUM FLAGPOLE
43 DISTRICT HEATING COMPANY NORTH STACK
43 DISTRICT HEATING COMPANY SOUTH STACK
43 STACK
44 MAPATO WATERWAY STACK
45 CENTRAL SCHOOL FLAGPOLE
46 ST JOSEPHS HOSPITAL DOME
47 MILWAUKEE SLIP TANK
48 PORT DOCKS BLACK TANK
49 WASHINGTON PARLOR FURNITURE COMPANY BLACK TANK
50 P AND S HILL COMPANY BLACK IRON STACK
51 TACOMA HIGHEST OF THREE CONCRETE STACKS
51 ST PAUL AND TACOMA LUMBER COMPANY NORTH STACK
51 ST PAUL AND TACOMA LUMBER COMPANY SOUTH STACK
52 SPINDLE

52 BEACON
53 GLOVER 2
53 GLOVER 3
54
55 SALLY
55 SALLY 2
55 MAL
55 MARY
56 HUNCH
56 HUNCH 2
57 SQUARE WHITE TOWER
58 SQUARE TOWER
59 GRANTS FLAGPOLE
60 GREEN TOWER
61 DORNER WINDOW
62 POLE
63 SOUTH BEACH DOCK SIGN
63 SOUTH BEACH DOCK FLAGPOLE
64 SQUARE GREEN HOUSE
65 SIGN SEAL
66 FORT WARD LIGHT STAND
67 TWO
68 PHELANS CUPOLA
68 PHELANS BARN CUPOLA
69 PLEASANT BEACH DOCK SIGN NORTHWEST CORNER
70
71 BREMERS BOATHOUSE
71 BACHUSS BOATHOUSE
72 STAINED CUPOLA
73 MARLETTE
74 NAVY
75 BARCE 2
76 PORT ORCHARD COURTHOUSE CUPOLA
77 PORT ORCHARD CHRISTIAN CHURCH CUPOLA
77 PORT ORCHARD SCHOOLHOUSE CUPOLA FLAGSTAFF
78 PORT ORCHARD HOTEL CUPOLA
79 CHARLESTON HOUSE GARLE
80 NAVY YARD COAL BUNKERS SHOKESTACK
81 NAVY YARD MAIN WIRELESS MAST
81 NAVY YARD WHITE WIRELESS MAST
81 PUGET SOUND NAVY YARD SH RADIO TOWER
82 NAVY YARD POWDER HOUSE FLAGSTAFF
83
84 BREMERTON METHODIST CHURCH STEEPLE
85 BREMERTON PRESBYTERIAN CHURCH STEEPLE
85 BREMERTON CATHOLIC CHURCH STEEPLE
86 RED ROOFED HOUSE CHIMNEY
87 CHARLESTON TOWN HALL FLAGSTAFF
88 TRESTLE
89 FLO
90 STAFF
91 POINT HERRON LIGHT 1934
91 POINT HERRON LIGHT 1945
92 PORT ORCHARD LIGHT
93 NORTH FRONT RANGE TOWER
94 NORTH REAR RANGE TOWER
95 SOUTH FRONT RANGE TOWER
96 SOUTH REAR RANGE TOWER
97 YASHON SCHOOL CUPOLA
98 DES MOINES MASONIC HOME WATER TANK
99 OBSERVATION TOWER ON HILL
100 RAVINE
101 MALL
101 SUMMER HOUSE ON BLUFF SPIRE
102 OIL
102 STANDARD OIL CO DOCK LIGHTPOST AT NORTHWEST CORNER
103 EVERGREEN
103 EVERGREEN PARK PAVILION SPIRE
104 RANGE
105 MAIN
106 GRAVEL
107 REID
108 WARREN
109 LARS

KEY TO NUMBERED STATIONS

FOR
TRIANGULATION CHART 6460
BY THE
NATIONAL GEODETIC SURVEY

110 OHIO
111 STEPHENS
112 GAS
113 LIGNITE
114 MARSH
115 PITTS
115 BOULDER NEAR STATION PITTS
116
117 SHERIDAN
118 WUNDERLICH
119 ROSE
120 PHINNEY
121 SHELL
122 SULPHUR
123 BASS
124 BENEDICT
125 BROWN
126 NAVAL AMMUNITION DEPOT AIR BEACON SEARCHLIGHT
127 NAVAL AMMUNITION DEPOT ADMINISTRATION BUILDING FLAGPOLE
128 BUILDING NO 7 WEST SIDE FLAGPOLE
129 NAVAL AMMUNITION DEPOT DOCK HOUSE RED SIGNAL LIGHT
130 BOULDER NEAR STATION JOHNSON
131 YELLOW HOUSE ON HILL SOUTH CABLE
132 TANK AT GAS HOUSE APEX
133 MANETTE BRIDGE REAR RANGE DIAMOND SHAPED BEACON
134 DIAMOND SHAPED BEACON REAR RANGE FOR WESTERLY COURSE
134 SQUARE SHAPED BEACON FRONT RANGE FOR WESTERLY COURSE
135 MANETTE SCHOOL WEATHERVANE
135 MANETTE CHURCH STEEPLE
136 POINT DEFIANCE LIGHTHOUSE
137 EVANS POINT LIGHT
138
139 McDERMOTT POINT UNUSED LIGHTHOUSE AT ENTRANCE TO FILUCE BAY
140 DRAYTON PASSAGE LIGHT
141 EAGLE ISLAND BLINKER LIGHT
142 MOOR
142 MER
143 ALLOY
143 TACOMA RED TANK NEAR GRAIN ELEVATOR
144 BALT
145 TACOMA CHEMICAL PLANT GOLD DOME
146 TACOMA HARBOR HYLEBOS WATERWAY NORTH ENTRANCE LIGHT
147 TACOMA HARBOR HYLEBOS WATERWAY SOUTH ENTRANCE LIGHT
148 TACOMA GAS PLANT BLACK STACK
149 TACOMA KMO EAST RADIO MAST
149 TACOMA KMO WEST RADIO MAST
150 TACOMA RED TANK SPIKE
151 TACOMA W O C O RED TANK
152 TACOMA GREAT NORTHERN RAILROAD YARDS TANK
153 TACOMA HARBOR HYLEBOS WATERWAY CENTER ONE OF THREE BLACK STACKS
154 TACOMA HARBOR HYLEBOS WATERWAY RED TANK
155 TACOMA MOST NORTHERLY OF THIN BLACK STACKS
156 TACOMA CITY WATERWAY WEST ENTRANCE GREEN LIGHT
157 TACOMA THIN BLACK STACK
158 TACOMA LUMBER COMPANY BLACK STACK
159 TACOMA STACK NEAR STATION PUG
160 TACOMA MAPATO WATERWAY ENTRANCE LIGHT
161 TACOMA PUYALLUP WATERWAY CONCRETE STACK
162 TACOMA PUYALLUP WATERWAY NORTH THIN STACK
163 POTLACH BEACH SUB DIVISION LOTS 32 AND 33 EAST CORNER
164 FLAGPOLE NORTH OF STATION WINTER 2
165 HOUSE ON DOCK EAST CABLE NORTH OF STATION HAMA HAMA 2
166 HOUSE EAST CHIMNEY BACK OF STATION CABIN 2
167 POTLACH LARGE STANDPIPE
168 POTLACH POWERHOUSE SOUTHEAST CORNER
169 UNION CITY HOUSE ON DOCK EAST CABLE
170 WHITE HOUSE WEST CHIMNEY EAST OF STATION BURN 2
171 LARGE WHITE HOUSE WEST OF STATION WALLY MAST IN FRONT
172 SHARP ROOFED HOUSE SOUTHEAST OF STATION WILSON 2 EAST CABLE
173 WOODEN OIL TANK ON DOCK NEAR STATION SCOTT CENTER
174 FLAGPOLE NEAR STATION MUGHEY 2
175 FLAGPOLE ON END OF DOCK BETWEEN STATION MUGHEY 2 AND STATION HOME
176 LARGE RED HOUSE AT STATION HOME NORTH CABLE
177 FLAGPOLE WEST OF STATION GRANITE 2

178 FLAGPOLE NEAR STATION GRANITE 2
179 DEAD TREE ON POINT SOUTH OF STATION HAMA HAMA 2
180 FLAGPOLE
181 GRAY HOTEL NORTH CABLE
182 WOODSPORT OIL TANK NORTH ONE OF TWO
183 WOODSPORT CHURCH CUPOLA
184 WHITE BUILDING NORTHEAST CORNER
185 WHITE HOUSE ON BEACH SOUTH CABLE BETWEEN STATIONS SUN AND SPRING 2
186 RED ROOFED HOUSE WEST OF STATION GRAY POINT 2 EAST CABLE
187 FLAGPOLE BETWEEN STATIONS PIERCE 2 AND GARDEN 2 WEST ONE OF TWO
188 FLAGPOLE BETWEEN STATIONS PIERCE 2 AND GARDEN 2 EAST ONE OF TWO
189 FLAGPOLE NORTH OF STATION RAY 2
190 HERRON WHARF HOUSE EAST CABLE
191 HERRON WATER TOWER WEST WINDOW
192 STRETCH ISLAND NORTH END HOUSE ON DOCK NORTH CABLE
193 YELLOW HOUSE NEAR STATION WATER 2 WEST CABLE
194 ALLYN DOCK HOUSE SOUTH CABLE
195 ALLYN SCHOOLHOUSE BELFRY
196 WEST TRANSMISSION TOWER
197 EAST TRANSMISSION TOWER
198 DETROIT DOCK HOUSE EAST CABLE
199 READING
200 CHURCH SPIRE
201 WHITE BOATHOUSE BETWEEN VASHOR AND FERN 2 WEST CABLE
202 FLAGPOLE NEAR BEACH IN YARD OF WHITE HOUSE
203 FLAGPOLE NEAR BEACH IN YARD HALFWAY BETWEEN VASHOR AND FERN 2
204 WHARFHOUSE ON DOCK JUST EAST OF PT PETER NORTHWEST CABLE
205 SOUTHERNMOST ONE OF THREE SPACKS EAST CABLE
206 SYLVAN BEACH WHARFHOUSE NORTH CABLE
207 SCHOENFELD BRICK CHIMNEY
208 COVE WHARF WEST CHIMNEY
209 DREWITT HOUSE SOUTHEAST CORNER
210 FREGARIA HOUSE EAST CABLE
211 OLYMPIA ENTRANCE LIGHT
212 BUDD INLET LIGHT
213 WEST OLYMPIA SHOAL LIGHT
214 OLYMPIA HARBOR RANGE REAR LIGHT 1936
215 OLYMPIA INNER RANGE REAR LIGHT 1936
216 OLYMPIA EASTSIDE MUNICIPAL TANK
217 OLYMPIA WESTSIDE MUNICIPAL TANK
218 OFFLEMEYER POINT LIGHT
219 BRISCOE POINT LIGHT
220 ARCADIA LIGHT
221 CUSHMAN POINT LIGHT
222 LIBBY POINT LIGHT
223 SHELTON SIMPSON POWER PLANT STACK
224 SHELTON RAINIER PULP AND PAPER CO STACK
225 SHELTON WASON COUNTY COURTHOUSE FLAGPOLE
226 SHELTON DAVISCOURT BAKERY STACK
227 SHELTON YELLOW HOUSE SOUTHEAST CABLE
228 CHURCH POINT LIGHT
229 COW TREE
229 KENT FAA RML MICROWAVE TOWER
229 KENT DIST 111 TANK
230 POWER POLE NO 2
231 POWER POLE NO 1
232 BIG BLACK SNAG
233 KENT CHURCH
234 BRISCOE SCHOOL WEST SPIRE
235 KENT HIGH SCHOOL BRICK CHIMNEY
236 NORTH WIRELESS POLE IN VALLEY WEST OF STATION KENT
236 SOUTH WIRELESS POLE IN VALLEY WEST OF STATION KENT
237 AUBURN HIGH SCHOOL CHIMNEY
238 AUBURN BORDENS STACK
239 KENT HOWARD MANUFACTURING CO STACK
240 AIR BEACON IN VALLEY SOUTHWEST OF KENT
241 MILTON WATER TANK
241 MILTON AIR BEACON
242 KIRO NORTHWEST RADIO MAST
243 KIRO SOUTHEAST RADIO MAST
244 KVI RADIO TOWER
245 QUARTERMASTER HARBOR TOP OF LARGE BOULDER INSHORE OF TWO
246 QUARTERMASTER HARBOR TOP OF LARGE BOULDER OFFSHORE OF TWO
247 POINT PULLEY LIGHT

KEY TO NUMBERED STATIONS

FOR
TRIANGULATION CHART 6460
BY THE
NATIONAL GEODETIC SURVEY

247 POINT PULLEY ECCENTRIC LIGHT
248 TAG RM ROCK
249 OLYMPIA SOUTH WATER TANK
250 VASHON ISLAND RADIO STATION KOMO SOUTH TOWER
250 VASHON ISLAND RADIO STATION KOMO CENTER TOWER
250 VASHON ISLAND RADIO STATION KOMO NORTH TOWER
251 QUARTERMASTER HARBOR RADIO STATION KING SOUTH TOWER
251 QUARTERMASTER HARBOR RADIO STATION KING CENTER TOWER
251 QUARTERMASTER HARBOR RADIO STATION KING NORTH TOWER
252 BLAKEY ROCK LIGHT 1921
252 BLAKEY ROCK LIGHT 1934
253 RUSTON
253 RUSTON RM NO 1
254 TARGET RM
254 STA 13.3
255 TACOMA PUGET SOUND PLYWOOD INC STACK
256 INTERSECTION 11
257 INTERSECTION 1
258 DOW MOUNTAIN LOOKOUT HOUSE
259 TACOMA TV STATION KNO MAST
260
261 SHELTON RAYONIER PULP DISPOSAL STACK
262 TACOMA BARRONS BRIDGE NW TOWER
263 TACOMA BARRONS BRIDGE SE TOWER
264 MCNEIL ISLAND FEDERAL PENITENTIARY STACK
265 OLYMPIA RADIO STATION KGY MAST
266 TACOMA CHURCH OF THE VISITATION SPIRE
267 TACOMA RADIO STATION KTHV MAST
268 TACOMA TV STATION KTHV MAST
269 TACOMA RADIO STATION KTOY FM MAST
270 KING COUNTY WATER DISTRICT NO 75 STANDPIPE
271 TACOMA HOLY ROSARY CHURCH SPIRE
272 TACOMA RADIO STATION KTAC CENTER MAST
273 FIFE RADIO STATION KMO MAST
274 TACOMA POLICE RADIO STATION MAST
275 SOUTHWEST BAINBRIDGE
276 AIRPORT BEACON SEATTLE TACOMA INTERNATIONAL AIRPORT
277 AUBURN HEIGHTS WATER DISTRICT NO 64 STANDPIPE
278 OLYMPIA STATE CAPITOL BLDG DOME
279 TRANSMISSION TOWER
280 BLACK RIVER
281 SECTION 19 NW CORNER 1937
281 SECTION 19 NW CORNER 1938
282 SECTION 24 NW CORNER
283 BERRY 1
284 BERRY 2
285 N 6
286 N 3 MSF
286 NO 24 MSF
287 N 4 MSF
288 NO 25 MSF
289 SNOWALTER
290 TUCKWILA
291 BROWN TANK
291 N 3
292 N 2 MSF
293 N 1 MSF
294 PUGET SOUND NAVY YARD BLDG 467
295 PUGET SOUND NAVY YARD BLDG 290
296 PUGET SOUND NAVY YARD BLDG 431
297 PUGET SOUND NAVY YARD BOILER HOUSE NORTH STACK
298 PUGET SOUND NAVY YARD POWER PLANT STACK 1945
298 NAVY YARD POWER PLANT SMOKESTACK 1908
299 ORCHARD ROCKS ECHO BOARD
300 LAKEWOOD WATER DISTRICT GRAVELLY LAKE STANDPIPE
301 GIG HARBOR LIGHT 1935
301 GIG HARBOR LIGHT 1976
301 ENTRANCE 2
301 GLO WITNESS CORNER N
301 GLO WITNESS CORNER S
302 GIBSON PT LIGHT
302 FOX ISLAND SIGNAL TOWER 1
303 HYDE
304 MCNEIL ISLAND RADIO TOWER

305 EGG
305 EAGLE ISLAND LIGHT
306 SUNNY
307 TOLIVA SHOAL BUOY
308 STEILACOOM NW TRANSMISSION TOWER LIGHT
309 KENT WEST HILL WATER TANK
310 KING COUNTY WATER DISTRICT 75 WATER TANK 1955
310 KING COUNTY WATER DISTRICT 75 SMALL TANK 1963
310 KING COUNTY WATER DISTRICT 75 LARGE TANK 1963
311 BAINBRIDGE ISLAND CY DEVENNY'S TOWER
312 E BLAKE 2
312 BLAKE ISLAND E LIGHT
313 PT VASHON LIGHT
313 VASHON ISLAND LIGHT
314 VIEW PARK N P R R MICROWAVE MAST
315 VIEW PARK TV STATION KTHV MAST
316 WATERMAN PT LIGHT
317 SINCLAIR INLET RADAR CALIBRATION TARGET 5
318 SINCLAIR INLET RADAR CALIBRATION TARGET 4
319 SINCLAIR INLET RADAR CALIBRATION TARGET 3
320 SINCLAIR INLET RADAR CALIBRATION TARGET 2
321 SINCLAIR INLET RADAR CALIBRATION TARGET 1
322 PORT ORCHARD E MUNICIPAL TANK
322 PORT ORCHARD W MUNICIPAL TANK
323 BREMERSON NAVY YARD RADAR COLLIMATION TOWER
324 DRONE 2
324 DRONE 3
324 WHITE HOUSE NEAR DRONE FLAGPOLE
325 NAUTICAL SOUTHEAST
325 NAUTICAL SOUTHEAST FRONT TARGET
325 NAUTICAL SOUTHEAST REAR TARGET
326 NAUTICAL NORTHWEST FRONT TARGET
326 NAUTICAL NORTHWEST REAR TARGET
327 MCNEIL ISLAND FEDERAL PENITENTIARY TANK
328 PT DEFIANCE LIGHT 1976
329 BELLEVUE WOODRIDGE STANDPIPE
330 KENT MUNICIPAL STANDPIPE
331 KENT DIST 58 TANK 3
332 KENT DIST 58 TANK 5
333 RENTON DIST 58 TANK 1
334 TUCKWILA DIST 75 STANDPIPE 2
335 TUCKWILA PORT OF SEATTLE TANK
336 FEDERAL WAY DIST 75 TANK
337 FEDERAL WAY DIST 124 STANDPIPE 3 B
338 FEDERAL WAY DIST 124 STANDPIPE 1 A
339 FIFE FAA FLIGHT SERVICE E TOWER
339 FIFE FAA FLIGHT SERVICE W TOWER
340 DASH PT RADIO STATION KMO MAST
341 ALGONA DIST 124 STANDPIPE 2 A
342 VASHON ISLAND MIKE SITE TOWER
343 AUBURN PACIFIC NW BELL MICROWAVE TOWER
344 AUBURN RADIO STATION KASY MAST
345 KENT COUNTY PUBLIC SAFETY RADIO TOWER
346 FEDERAL WAY DIST 124 STANDPIPE 4 B
347 RENTON DIST 58 TANK 2
348 RENTON DIST 90 TANK
349 TUCKWILA DIST 75 TANK 6
350 SEATAC INTERNATIONAL AIRPORT RADAR TOWER
351 FEDERAL WAY DIST 124 STANDPIPE 1 B
352 REDDOND DIST 56 STANDPIPE
353 KITTS CORNER DIST 124 STANDPIPE