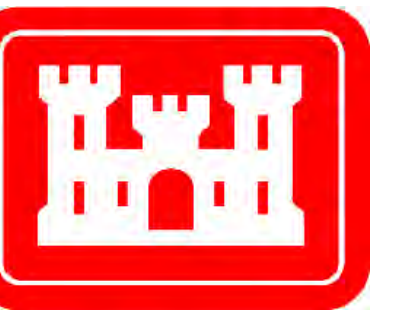
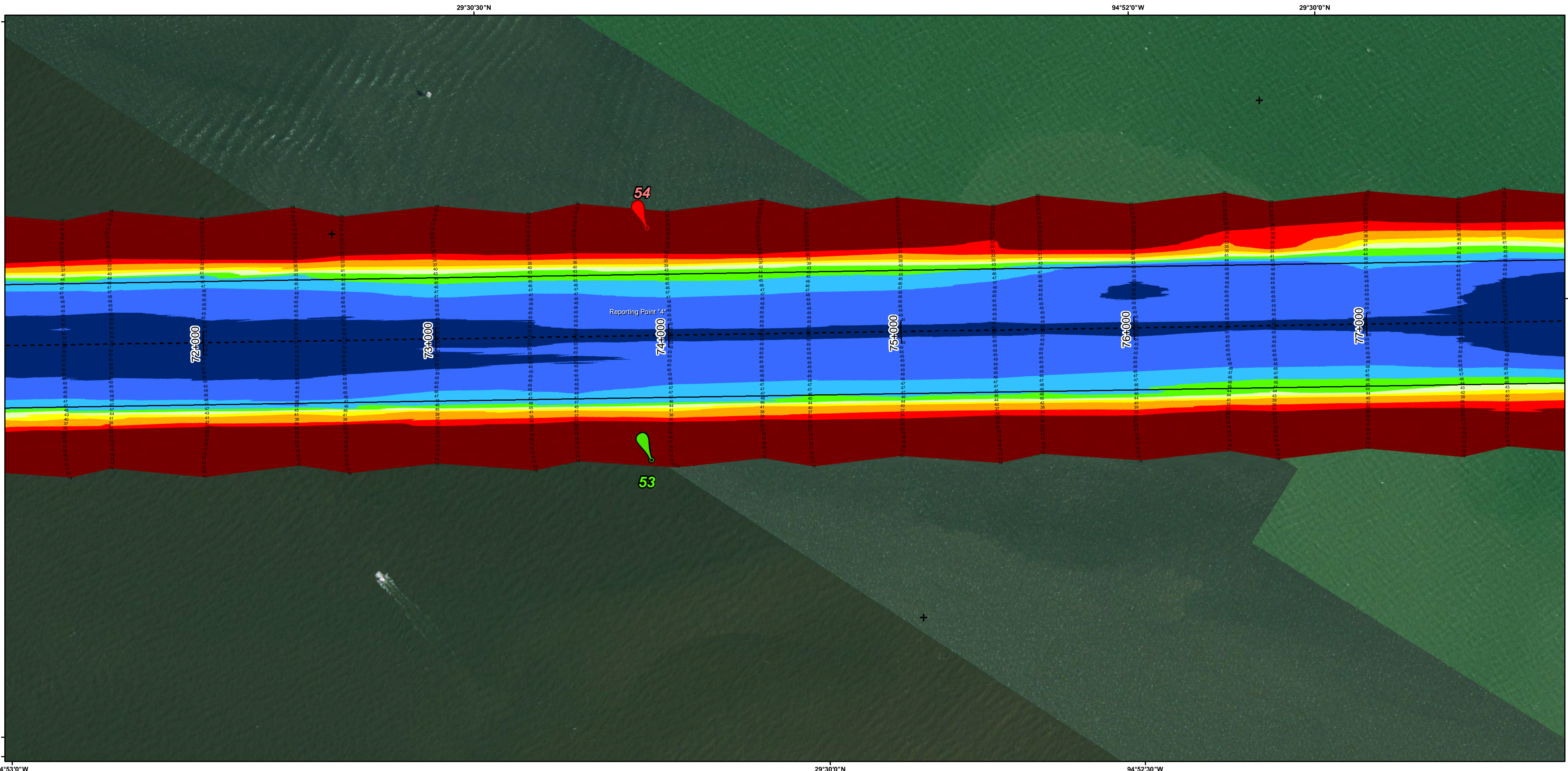
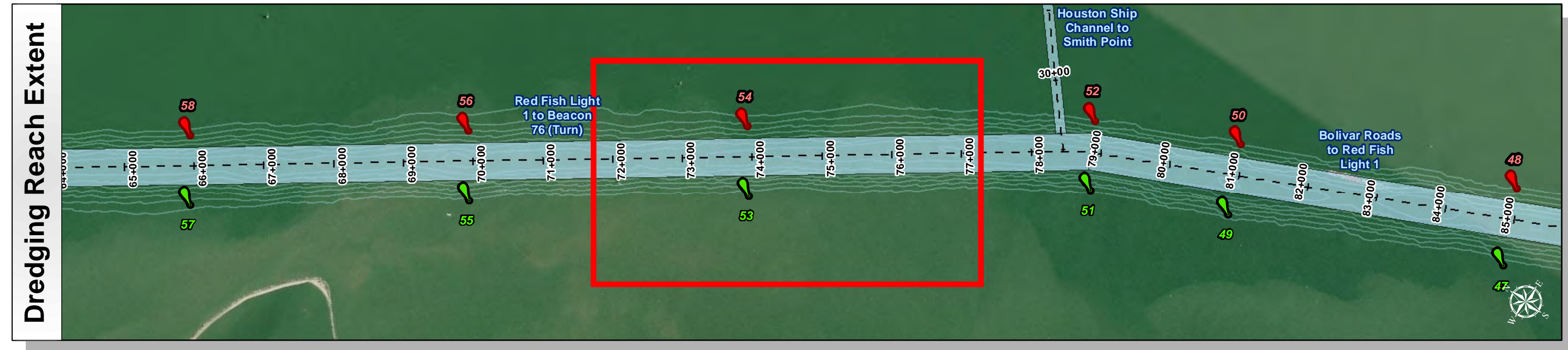
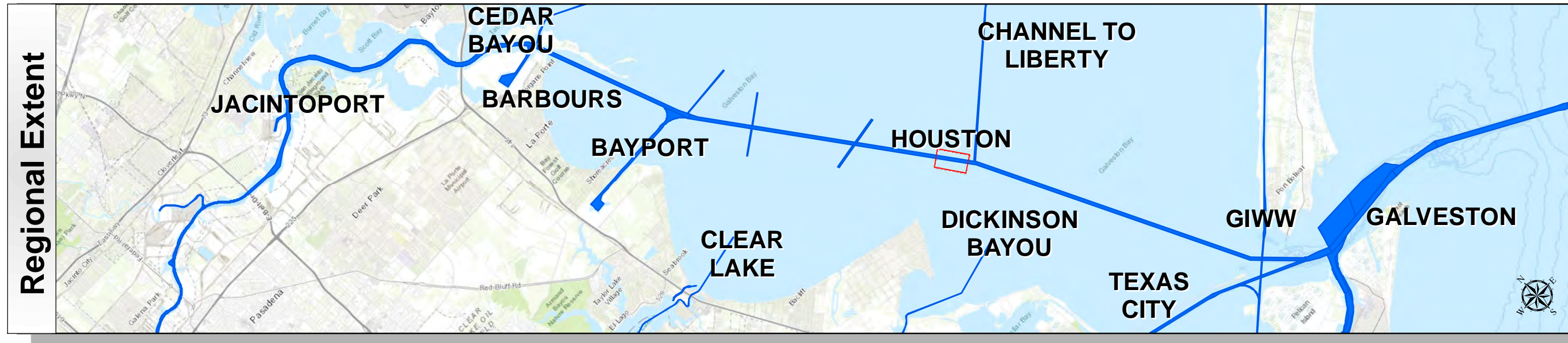


Houston Ship Channel: Red Fish Light 1 to Beacon 76 (Turn)



U.S. Army Corps of Engineers
Galveston District



Channel Features	Aids to Navigation	MLLW
Channel Toe	Green Side Aids	0 - 30
Channel Center Line	Red Side Aids	30 - 35
Channel Station Lines	Lights	35 - 40
Channel Dimensions		40 - 42
		42 - 44
		44 - 46
		46 - 48
		48 - 50
		50+
		NOAA Bathymetry (DREDGING REACH EXTENT)
		0 - 10
		10 - 15
		15 - 20
		20 - 25
		25 - 30
		30 - 50

NOTES:

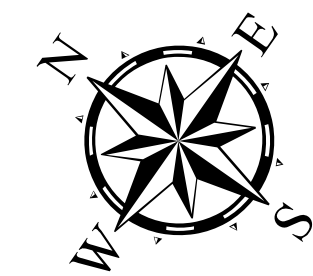
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Coordinate System:	Dredging Reach Extent	Hydrographic Survey Extent
NAD 1983 StatePlane Texas South Central FIPS 4204 Feet Projection: Lambert Conformal Conic /Datum: North American 1983	0 0.25 0.5 1 Miles	0 215 430 860 Feet

Survey Date(s): 14 May 2019	Authorized Depth: -46ft.
Page: 11 of 61	Side Slope Ratio: (Rise : Run)
Scale: 1:2,500	Additional Imagery: © DigitalGlobe Inc.
Mapped by: MSAOX PAC	Print Date: 5/20/2019
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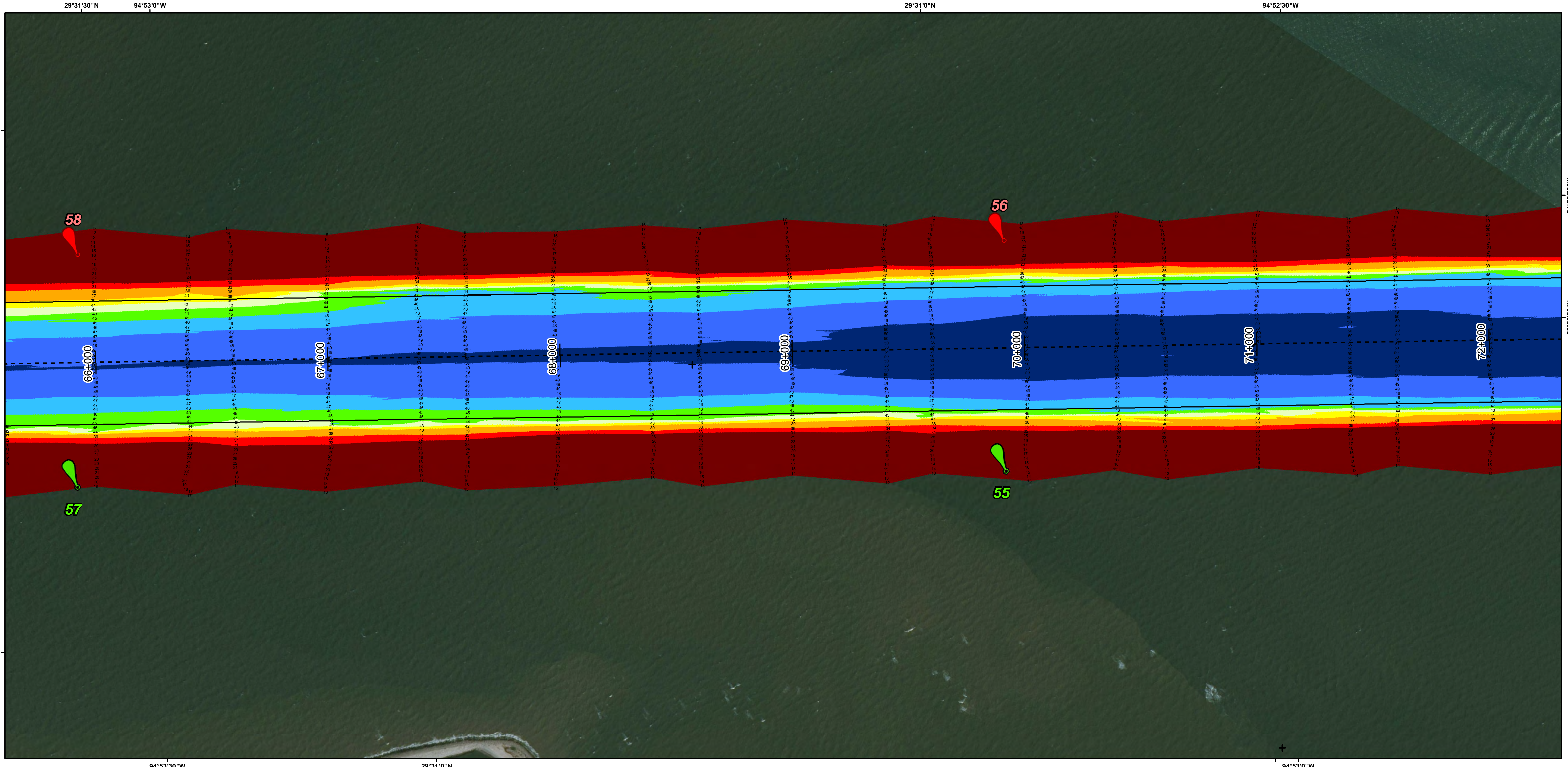
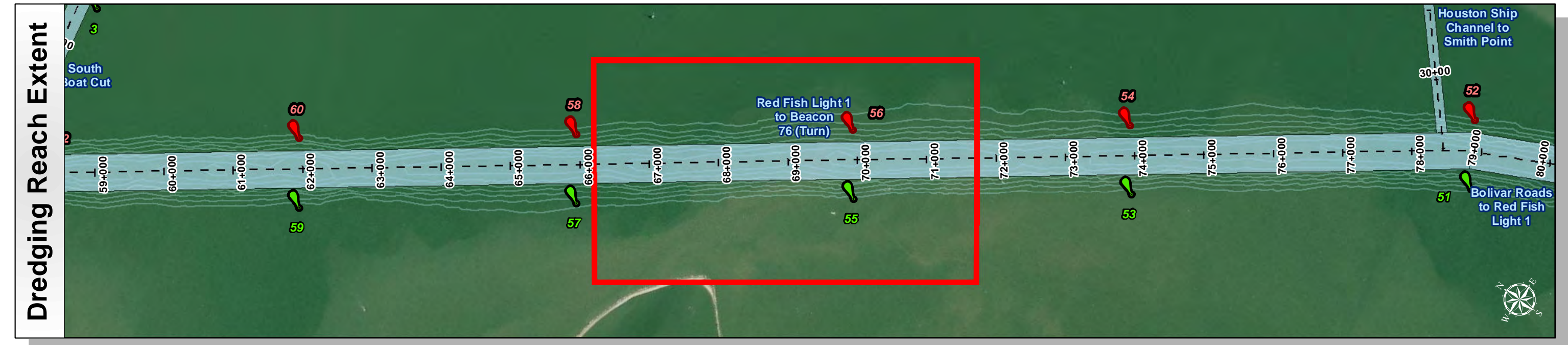
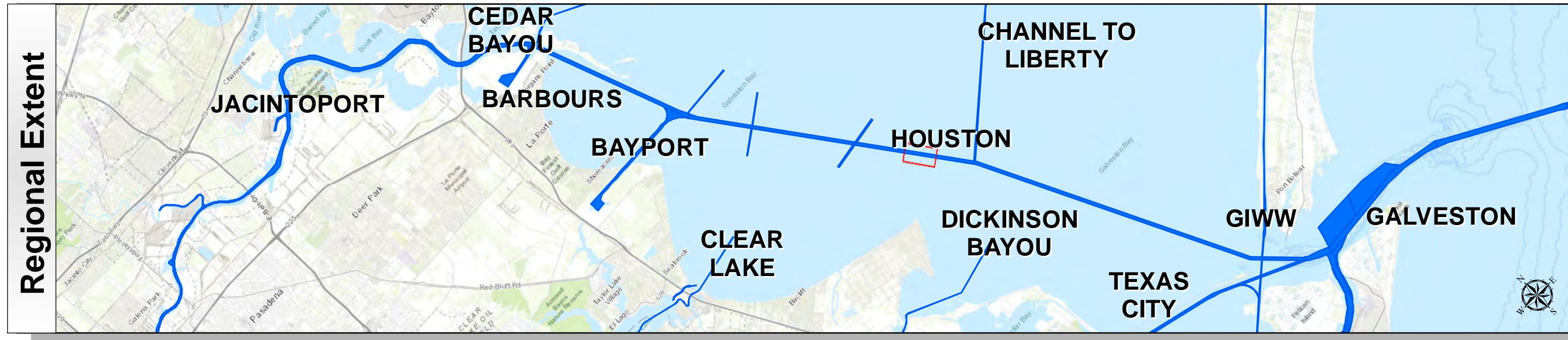
HYDROGRAPHIC SURVEY
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
GALVESTON, TEXAS

Station : 78+844 to 28+605
HOUSTON
HOUSTON, TEXAS

Houston Ship Channel: Red Fish Light 1 to Beacon 76 (Turn)



U.S. Army Corps of Engineers
Galveston District



Channel Features	Aids to Navigation	MLLW
— Channel Toe	Green Side Aids	0 - 30
- - - Channel Center Line	Red Side Aids	30 - 35
— Channel Station Lines	Lights	35 - 40
↔ Channel Dimensions		40 - 42
		42 - 44
		44 - 46
		46 - 48
		48 - 50
		50+
		NOAA Bathymetry (DREDGING REACH EXTENT)
		0 - 10
		10 - 15
		15 - 20
		20 - 25
		25 - 30
		30 - 50

NOTES:

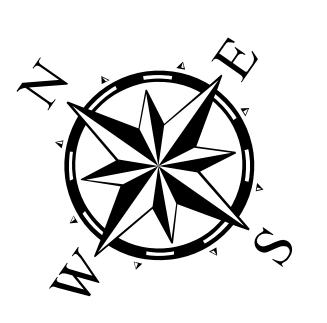
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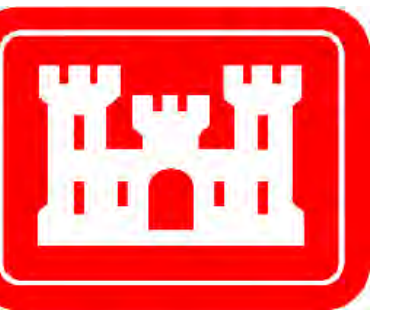
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Dredging Reach Extent	
Hydrographic Survey Extent	

Survey Date(s): 14 May 2019	Authorized Depth: -46ft.
Page: 12 of 61	Side Slope Ratio: (Rise : Run)
Scale: 1:2,500	Additional Imagery: © DigitalGlobe Inc.
Mapped by: MSAOX PAC	Print Date: 5/20/2019
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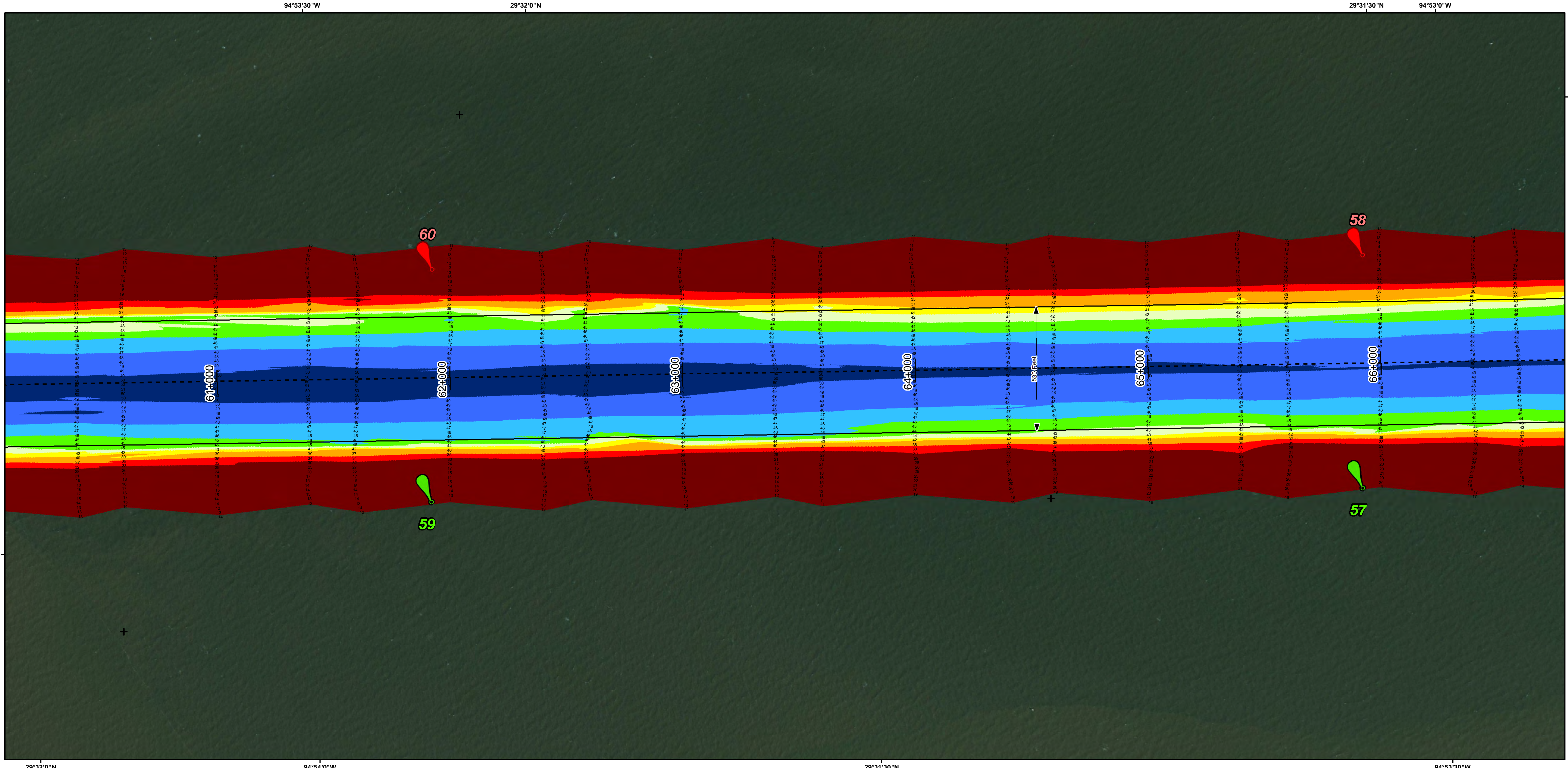
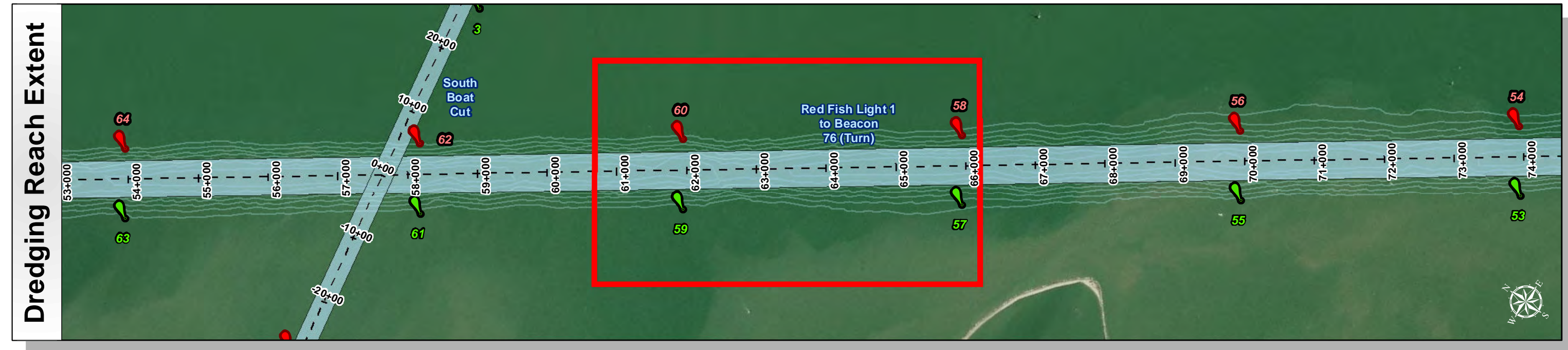
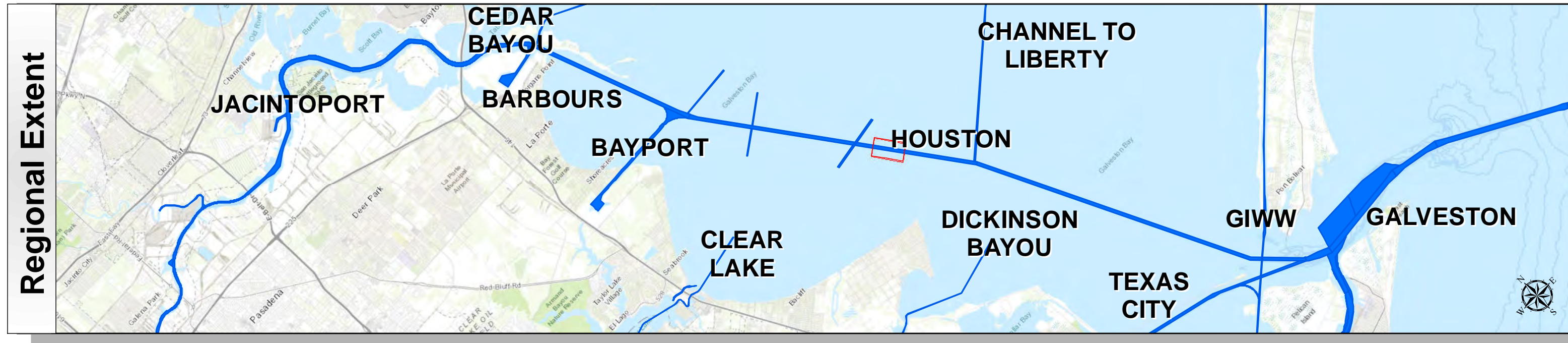
HYDROGRAPHIC SURVEY
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
GALVESTON, TEXAS

Station : 78+844 to 28+605
HOUSTON
HOUSTON, TEXAS

Houston Ship Channel: Red Fish Light 1 to Beacon 76 (Turn)



U.S. Army Corps of Engineers
Galveston District



Channel Features	Aids to Navigation	MLLW
<ul style="list-style-type: none"> Channel Toe Channel Center Line Channel Station Lines Channel Dimensions 	<ul style="list-style-type: none"> Green Side Aids Red Side Aids Lights 	<p>NOAA Bathymetry (DREDGING REACH EXTENT)</p> <p>0 - 10 10 - 15 15 - 20 20 - 25 25 - 30 30 - 50</p>

NOTES:

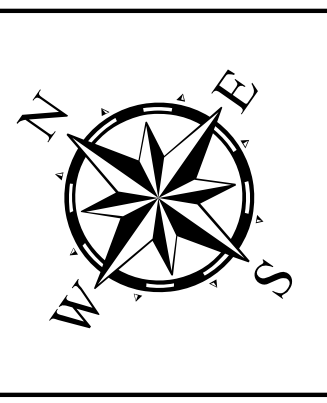
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Coordinate System: NAD 1983 StatePlane Texas South Central FIPS 4204 Feet
Projection: Lambert Conformal Conic /Datum: North American 1983

Dredging Reach Extent
0 0.25 0.5 1
Miles

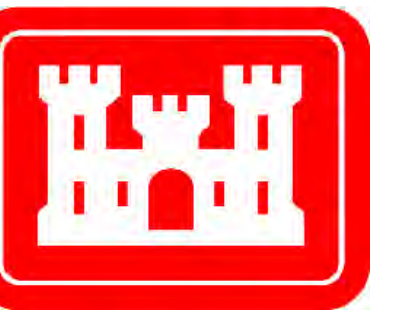
Hydrographic Survey Extent
0 215 430 860
Feet

Survey Date(s): 14 May 2019	Authorized Depth: -46ft.
Page: 13 of 61	Side Slope Ratio: (Rise : Run)
Scale: 1:2,500	Additional Imagery: © DigitalGlobe Inc.
Mapped by: MSAOX PAC	Print Date: 5/20/2019
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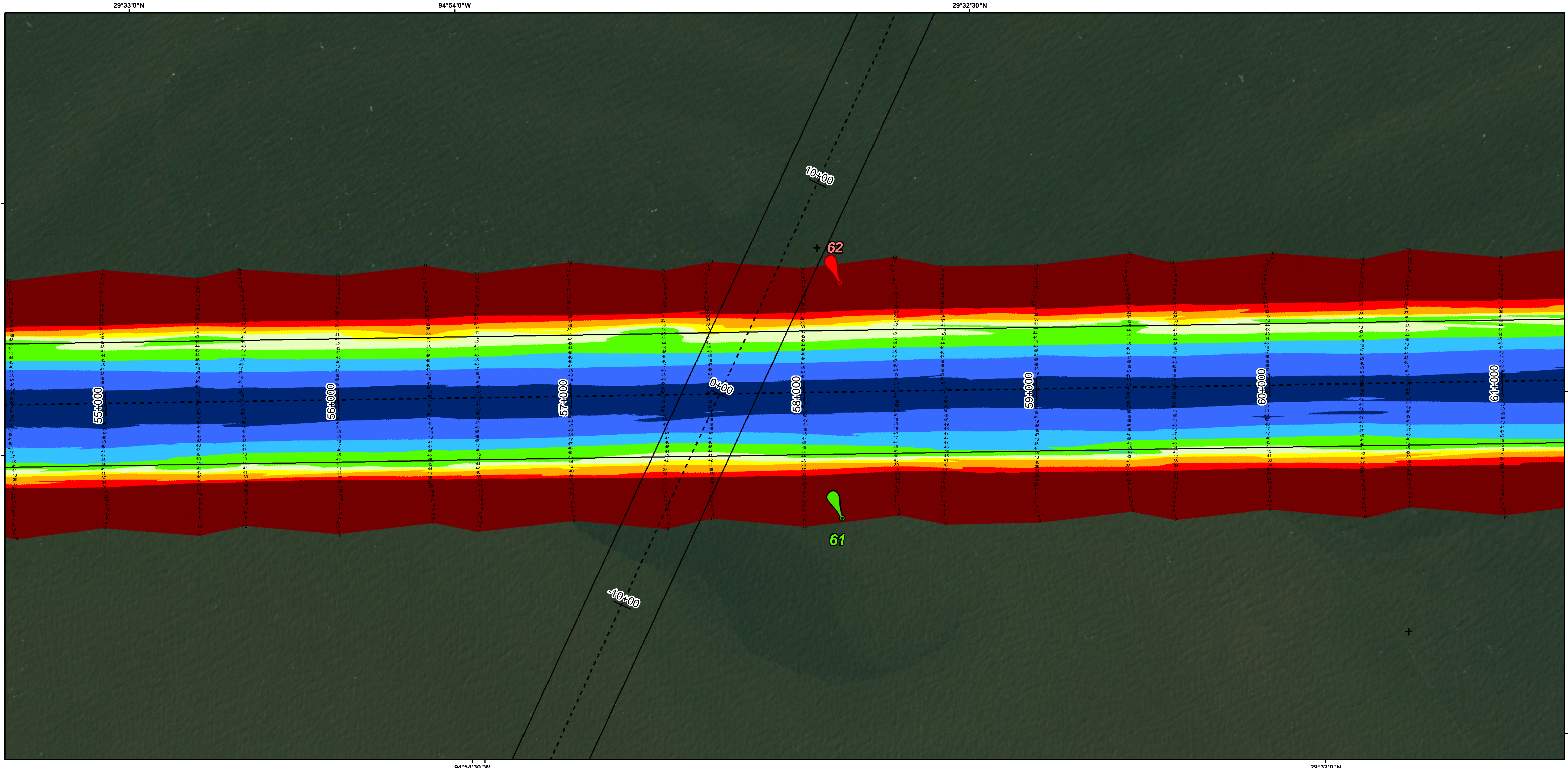
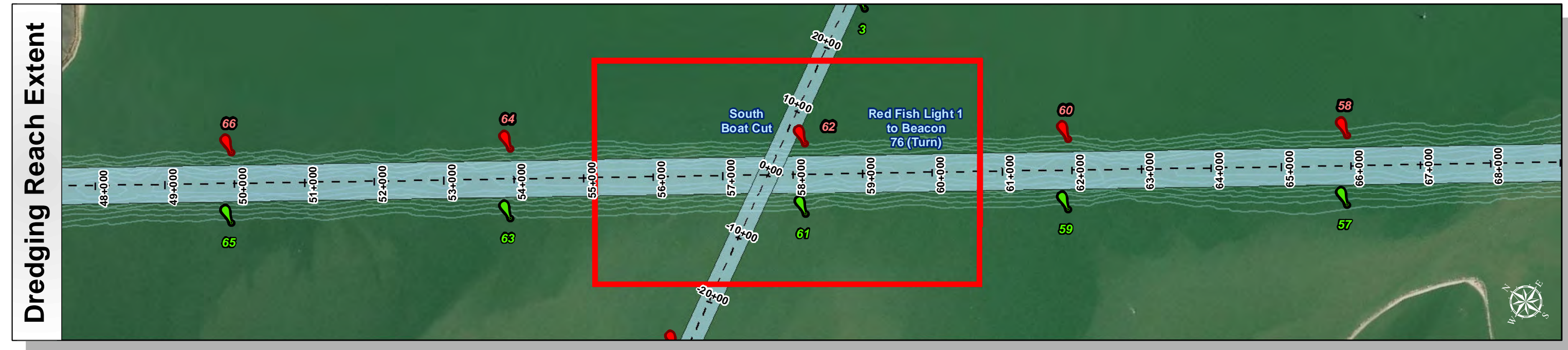
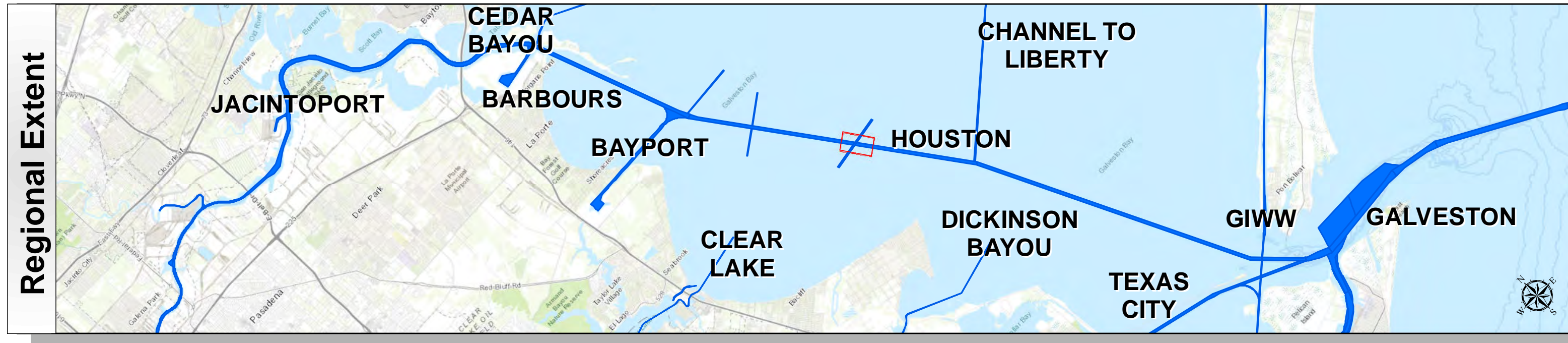
HYDROGRAPHIC SURVEY
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
GALVESTON, TEXAS

Station : 78+844 to 28+605
HOUSTON
HOUSTON, TEXAS

Houston Ship Channel: Red Fish Light 1 to Beacon 76 (Turn)



U.S. Army Corps of Engineers
Galveston District



Channel Features	Aids to Navigation	MLLW
— Channel Toe	Green Side Aids	0 - 30 30 - 35 35 - 40 40 - 42 42 - 44 44 - 46 46 - 48 48 - 50 50+
- - - Channel Center Line	Red Side Aids	NOAA Bathymetry (DREDGING REACH EXTENT)
— Channel Station Lines	Lights	0 - 10 10 - 15 15 - 20 20 - 25 25 - 30 30 - 50
↔ Channel Dimensions		

NOTES:

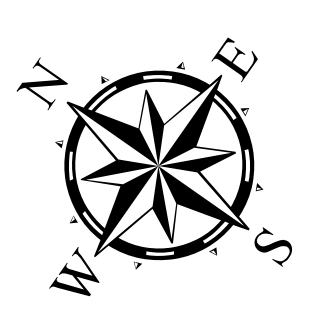
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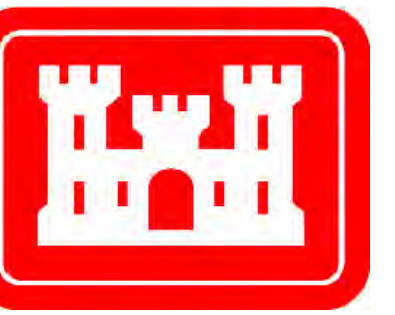
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Projection:	Lambert Conformal Conic /Datum: North American 1983
Dredging Reach Extent	0 0.25 0.5 1 Miles
Hydrographic Survey Extent	0 215 430 860 Feet

Survey Date(s): 14 May 2019	Authorized Depth: -46ft.
Page: 14 of 61	Side Slope Ratio: (Rise : Run)
Scale: 1:2,500	Additional Imagery: © DigitalGlobe Inc.
Mapped by: MSAOX PAC	Print Date: 5/20/2019
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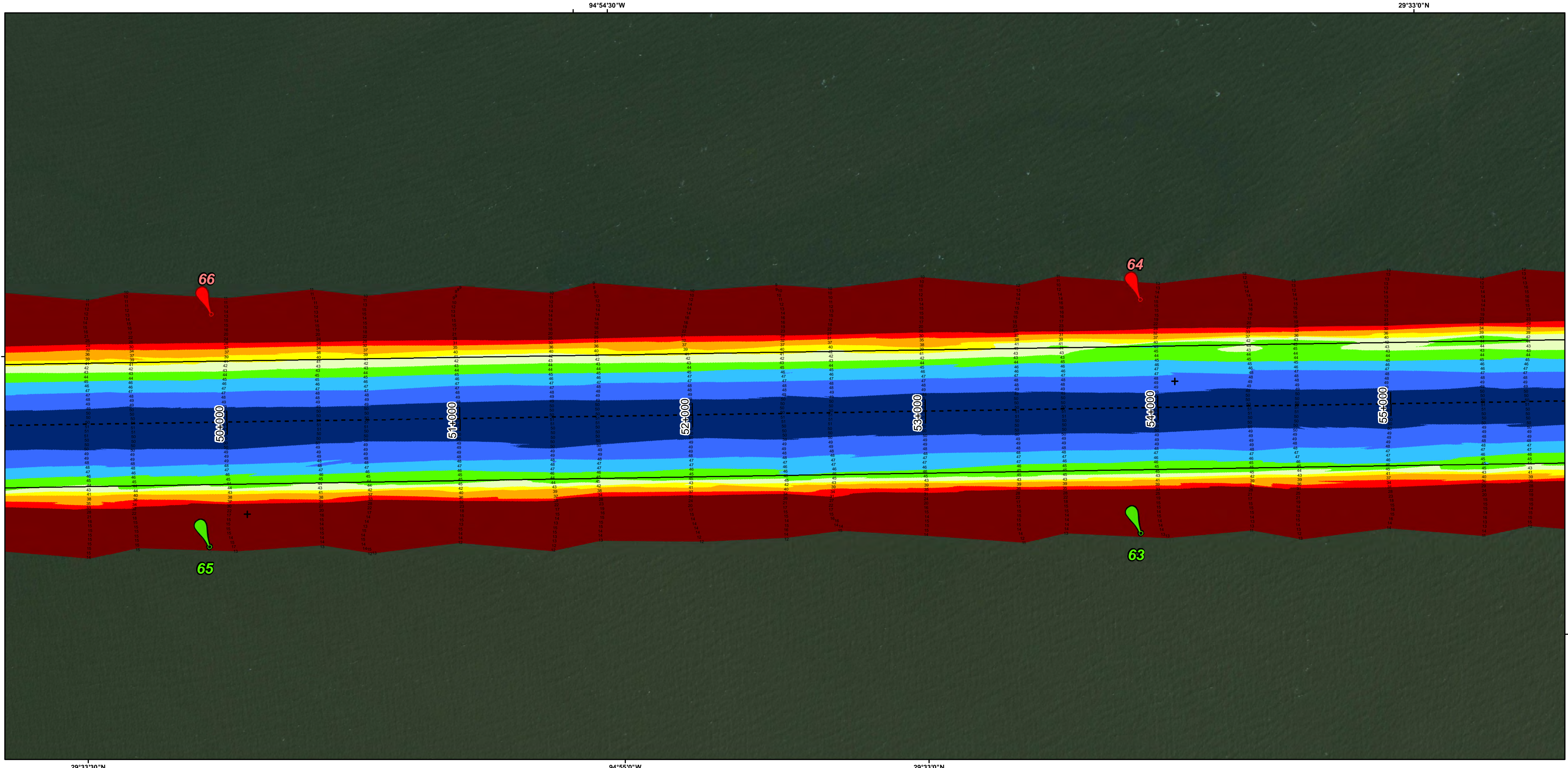
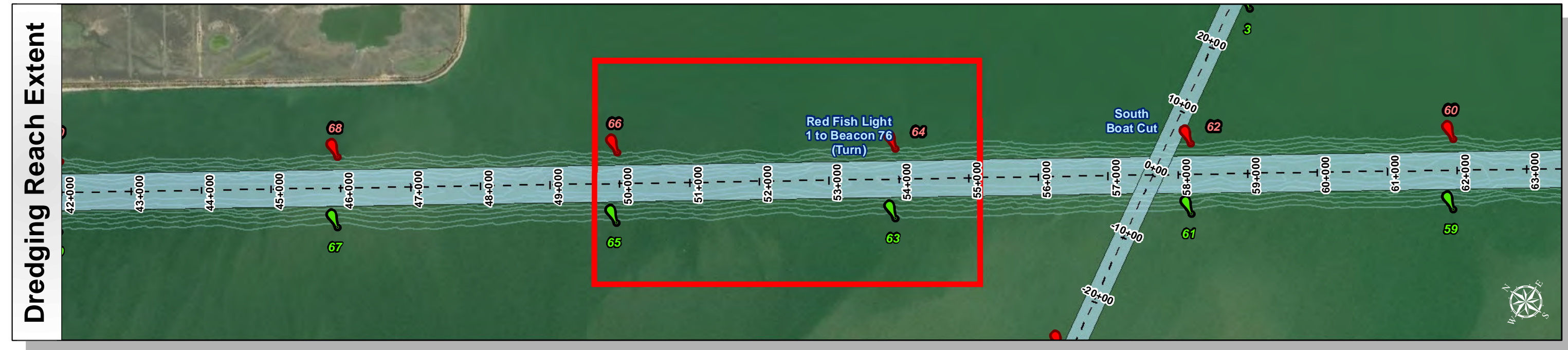
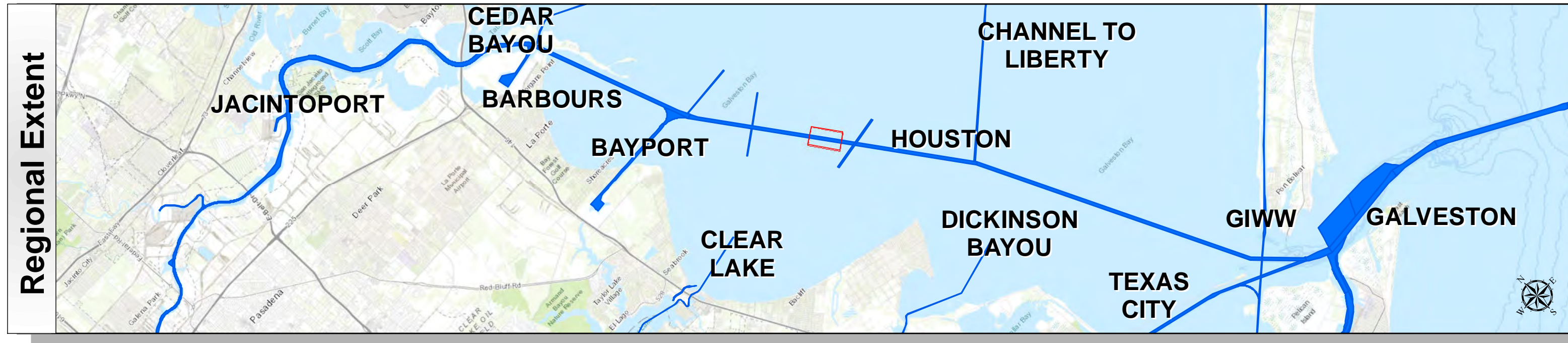
HYDROGRAPHIC SURVEY
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
GALVESTON, TEXAS

Station : 78+844 to 28+605
HOUSTON
HOUSTON, TEXAS

Houston Ship Channel: Red Fish Light 1 to Beacon 76 (Turn)



U.S. Army Corps of Engineers
Galveston District



Channel Features	Aids to Navigation	MLLW
— Channel Toe	Green Side Aids	0 - 30, 30 - 35, 35 - 40, 40 - 42, 42 - 44, 44 - 46, 46 - 48, 48 - 50, 50+
- - - Channel Center Line	Red Side Aids	NOAA Bathymetry (DREDGING REACH EXTENT)
— Channel Station Lines	Lights	0 - 10, 10 - 15, 15 - 20, 20 - 25, 25 - 30, 30 - 50
↔ Channel Dimensions		

NOTES:
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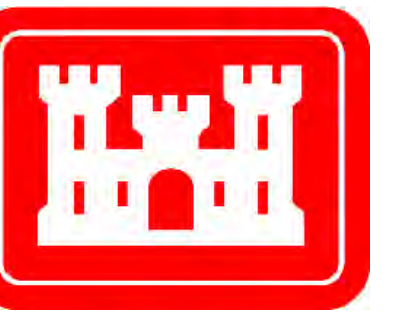
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Survey Date(s): 14 May 2019	Authorized Depth: -46ft.
Page: 15 of 61	Side Slope Ratio: (Rise : Run)
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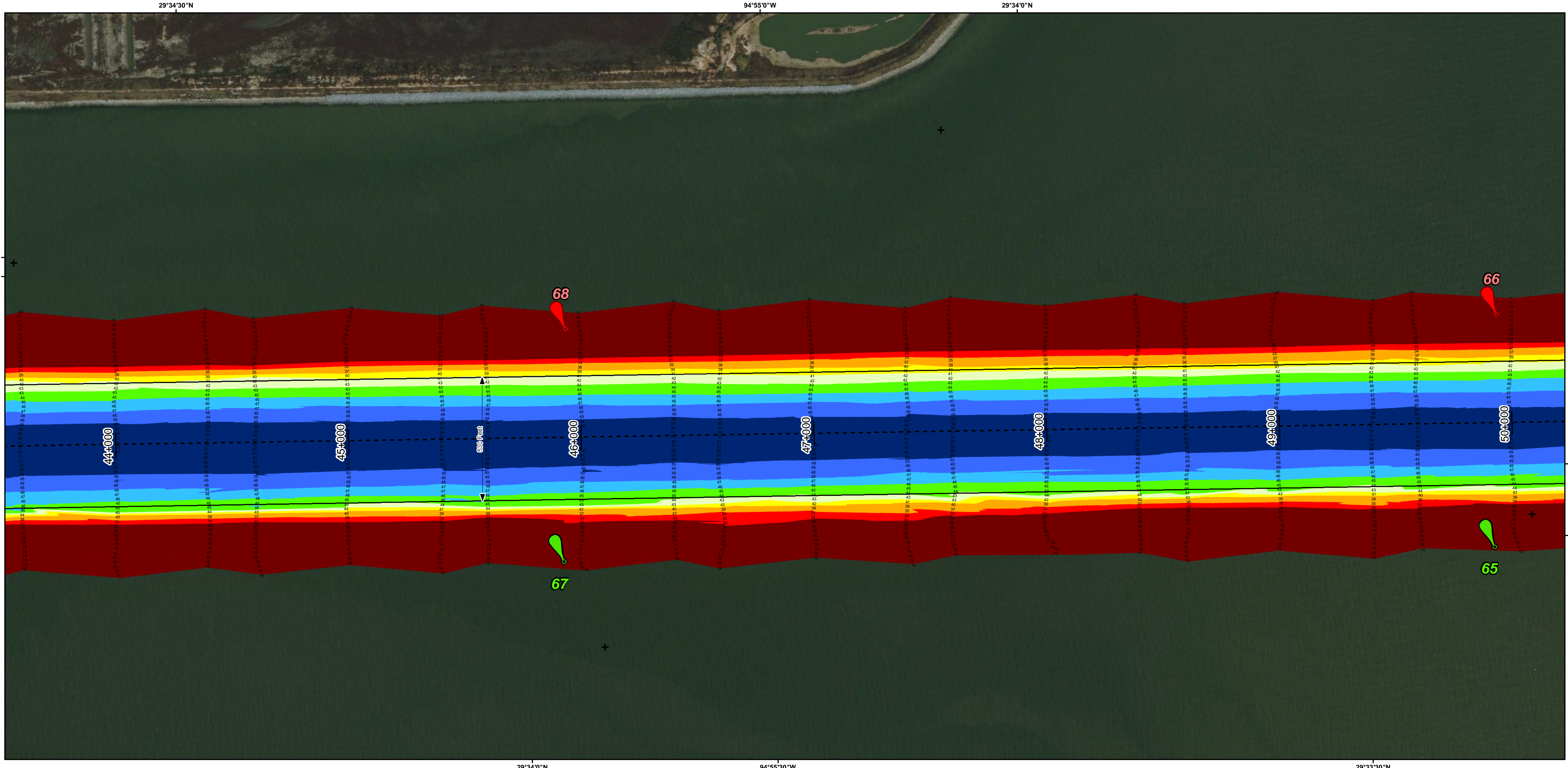
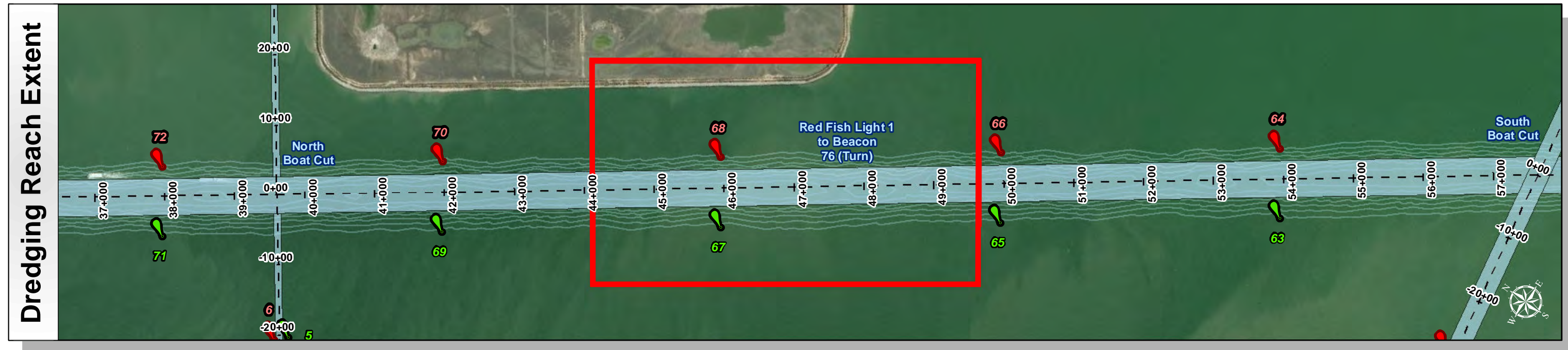
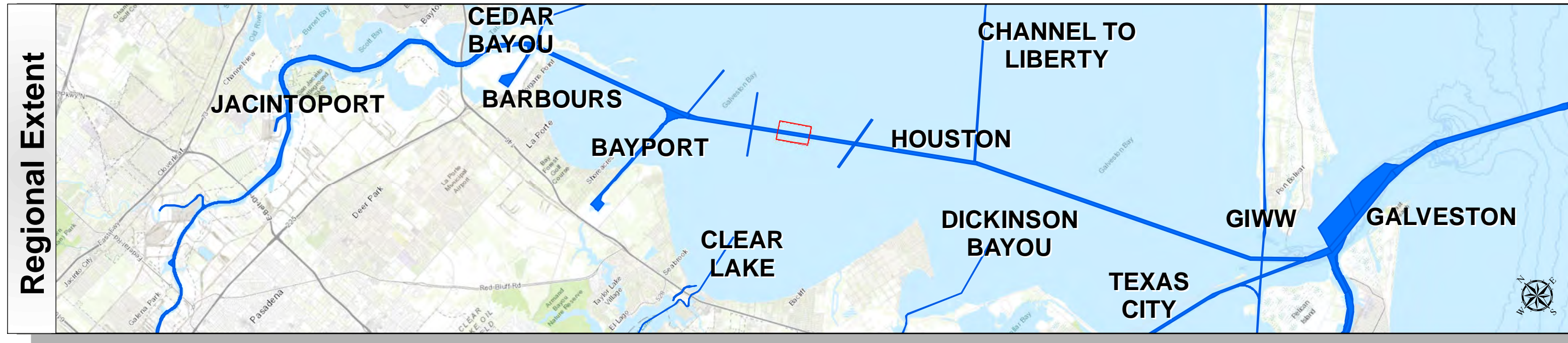
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 CORPS OF ENGINEERS
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 HOUSTON, TEXAS

Houston Ship Channel: Red Fish Light 1 to Beacon 76 (Turn)



U.S. Army Corps of Engineers
Galveston District



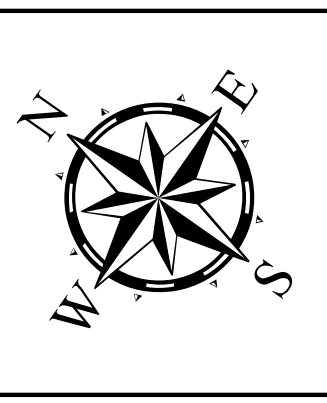
Channel Features	Aids to Navigation	MLLW															
<ul style="list-style-type: none"> Channel Toe Channel Center Line Channel Station Lines Channel Dimensions 	<ul style="list-style-type: none"> Green Side Aids Red Side Aids Lights 	<table border="1"> <tr> <td>0 - 30</td> <td>30 - 35</td> <td>35 - 40</td> <td>40 - 42</td> <td>42 - 44</td> <td>44 - 46</td> <td>46 - 48</td> <td>48 - 50</td> <td>50+</td> </tr> </table> <p>NOAA Bathymetry (DREDGING REACH EXTENT)</p> <table border="1"> <tr> <td>0 - 10</td> <td>10 - 15</td> <td>15 - 20</td> <td>20 - 25</td> <td>25 - 30</td> <td>30 - 50</td> </tr> </table>	0 - 30	30 - 35	35 - 40	40 - 42	42 - 44	44 - 46	46 - 48	48 - 50	50+	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 50
0 - 30	30 - 35	35 - 40	40 - 42	42 - 44	44 - 46	46 - 48	48 - 50	50+									
0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 50												

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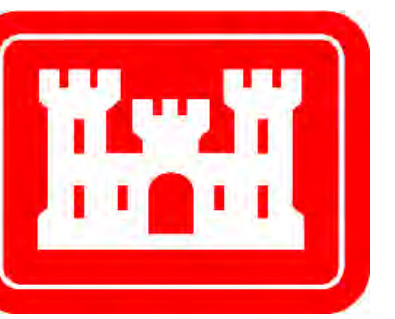
Coordinate System: NAD 1983 StatePlane Texas South Central FIPS 4204 Feet Projection: Lambert Conformal Conic /Datum: North American 1983	
Dredging Reach Extent	0 0.25 0.5 1 Miles
Hydrographic Survey Extent	0 215 430 860 Feet

Survey Date(s): 14 May 2019	Authorized Depth: -46ft.
Page: 16 of 61	Side Slope Ratio: (Rise : Run)
Scale: 1:2,500	Additional Imagery: © DigitalGlobe Inc.
Mapped by: MSAOX PAC	Print Date: 5/20/2019
Additional Info:	

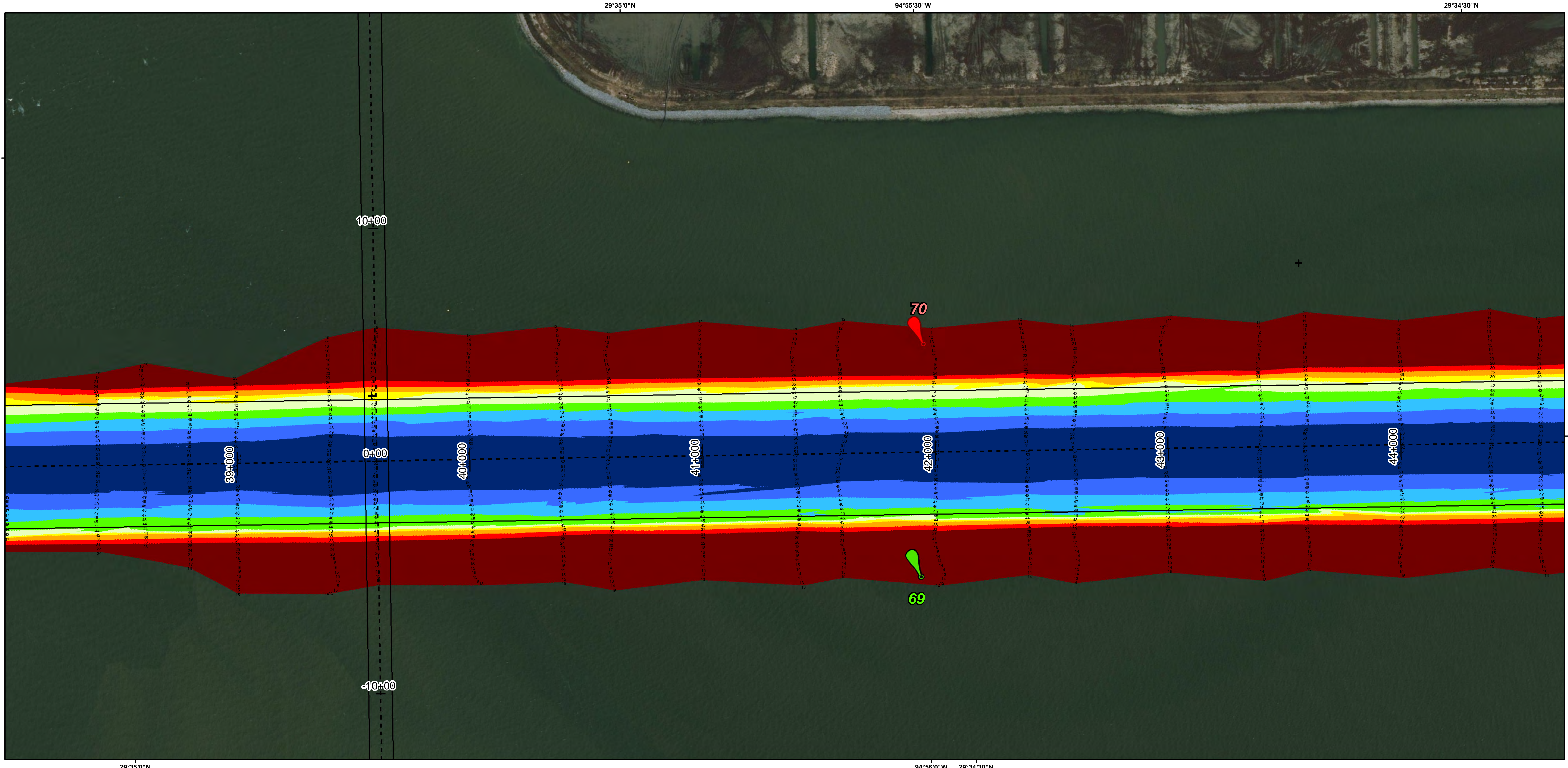
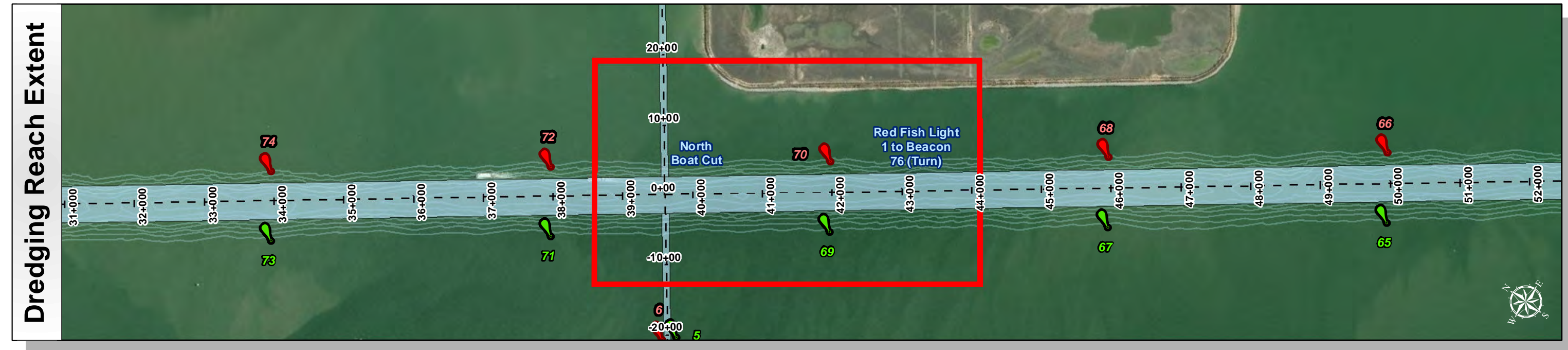
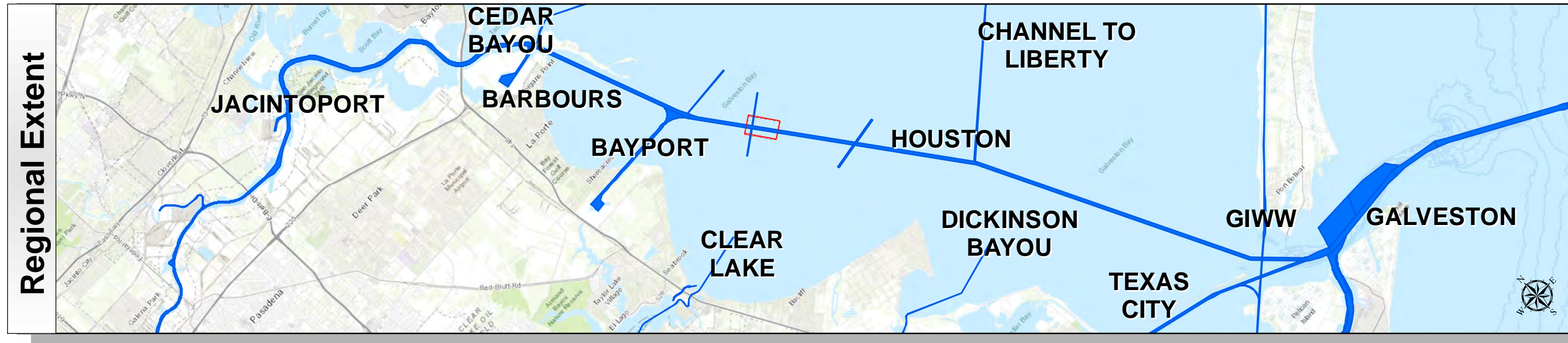
HYDROGRAPHIC SURVEY
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
GALVESTON, TEXAS

Station : 78+844 to 28+605
HOUSTON
HOUSTON, TEXAS

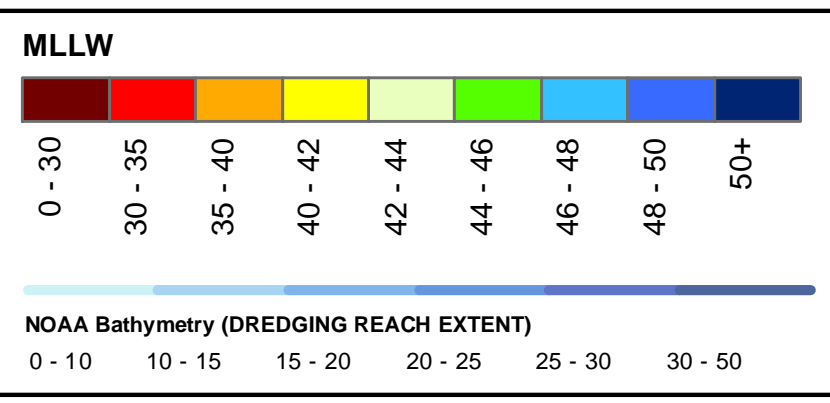
Houston Ship Channel: Red Fish Light 1 to Beacon 76 (Turn)



U.S. Army Corps of Engineers
Galveston District



Channel Features	Aids to Navigation
— Channel Toe	Green Side Aids
- - - Channel Center Line	Red Side Aids
— Channel Station Lines	Lights
↔ Channel Dimensions	



NOTES:

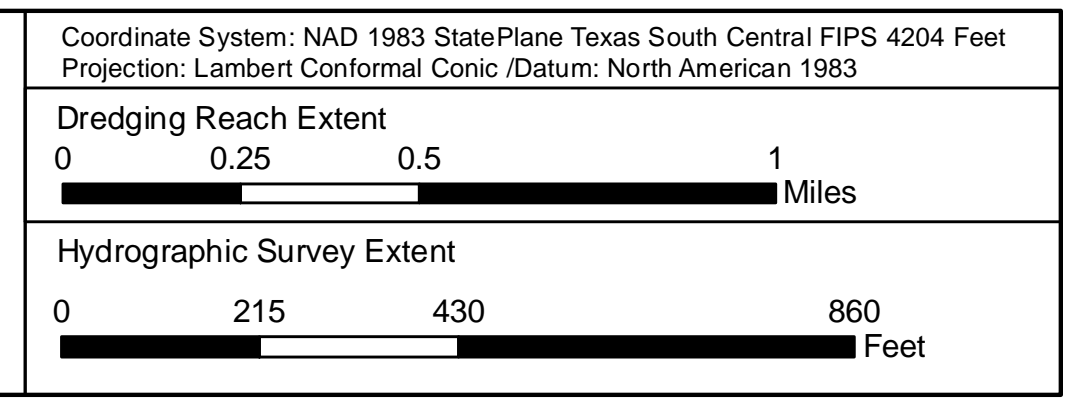
- HORIZONTAL COORDINATES ARE REFERENCED TO TEXAS STATE PLANE COORDINATE SYSTEM, SOUTH CENTRAL ZONE NAD83 US SURVEY FEET.
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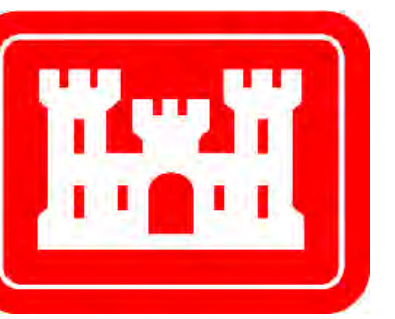


Survey Date(s): 14 May 2019	Authorized Depth: -46ft.
Page: 17 of 61	Side Slope Ratio: (Rise : Run)
Scale: 1:2,500	Additional Imagery: © DigitalGlobe Inc.
Mapped by: MSAOX PAC	Print Date: 5/20/2019
Additional Info:	

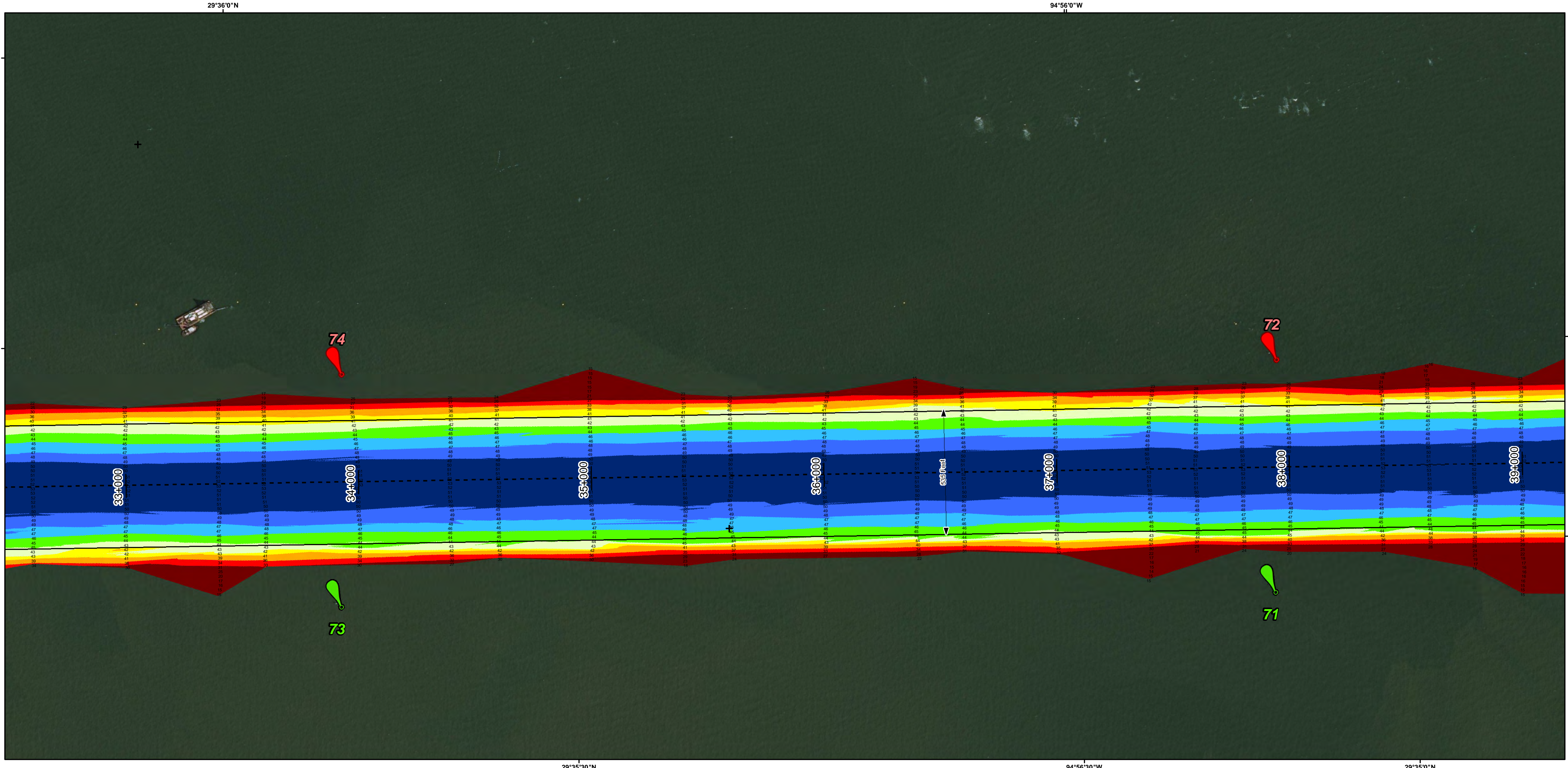
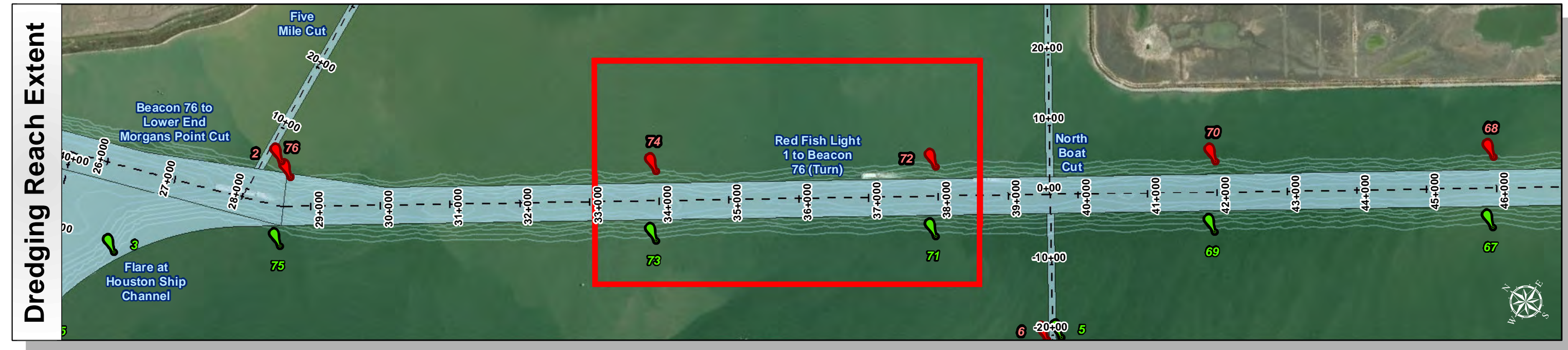
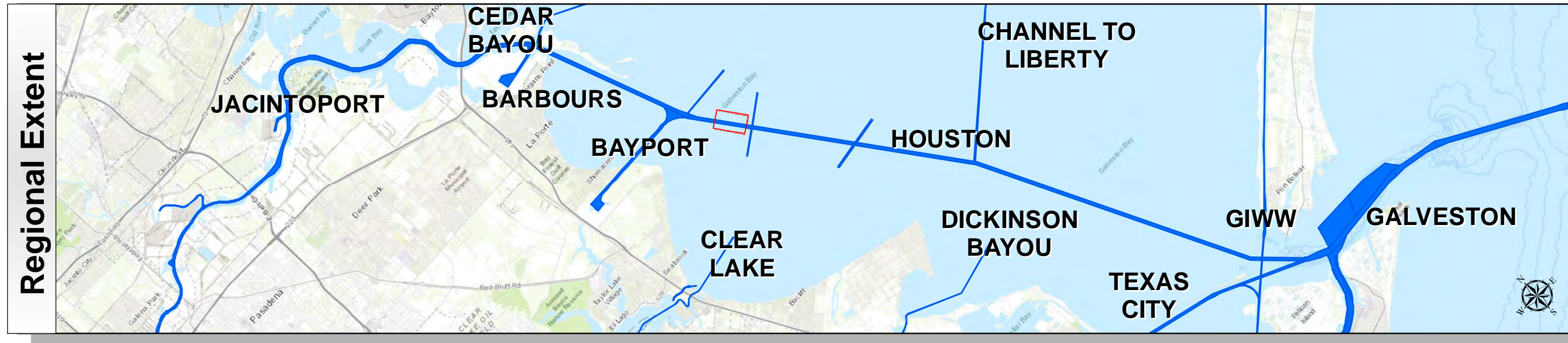
HYDROGRAPHIC SURVEY
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
GALVESTON, TEXAS

Station : 78+844 to 28+605
HOUSTON
HOUSTON, TEXAS

Houston Ship Channel: Red Fish Light 1 to Beacon 76 (Turn)



U.S. Army Corps of Engineers
Galveston District

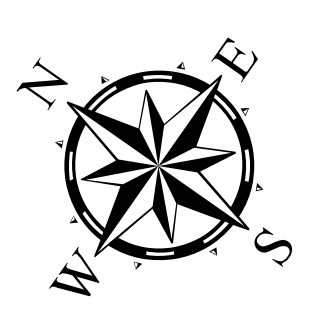


Channel Features	Aids to Navigation	MLLW
— Channel Toe	Green Side Aids	0 - 30
- - - Channel Center Line	Red Side Aids	30 - 35
— Channel Station Lines	Lights	35 - 40
↔ Channel Dimensions		40 - 42
		42 - 44
		44 - 46
		46 - 48
		48 - 50
		50+
		NOAA Bathymetry (DREDGING REACH EXTENT)
		0 - 10
		10 - 15
		15 - 20
		20 - 25
		25 - 30
		30 - 50

NOTES:
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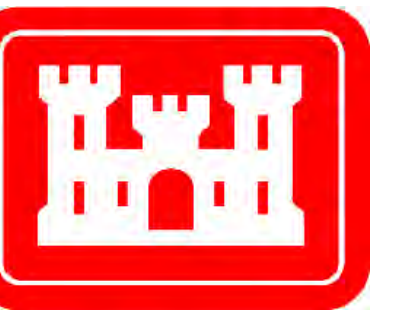


Coordinate System: NAD 1983 StatePlane Texas South Central FIPS 4204 Feet Projection: Lambert Conformal Conic /Datum: North American 1983
Dredging Reach Extent
0 0.25 0.5 1 Miles
Hydrographic Survey Extent
0 215 430 860 Feet

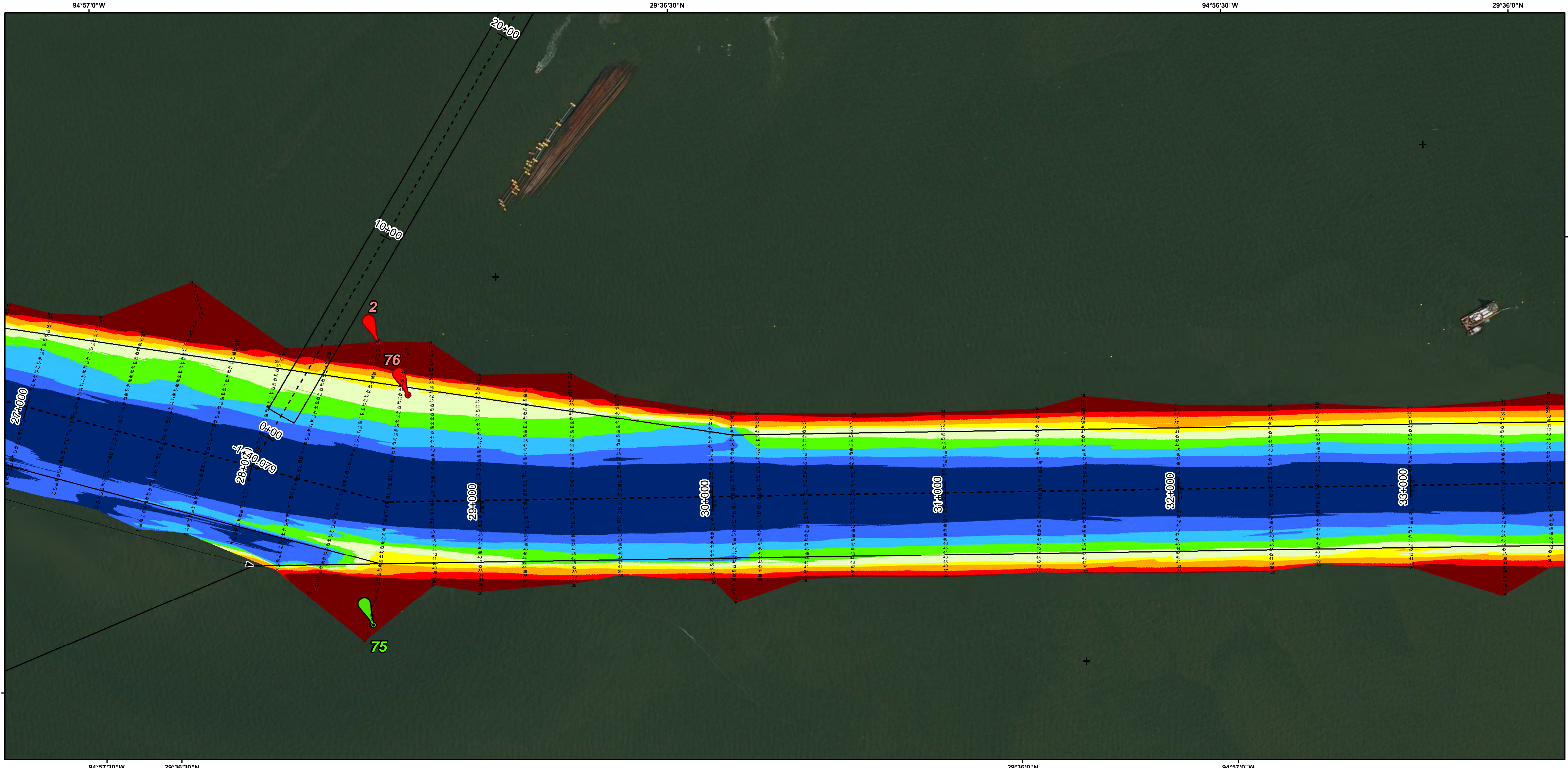
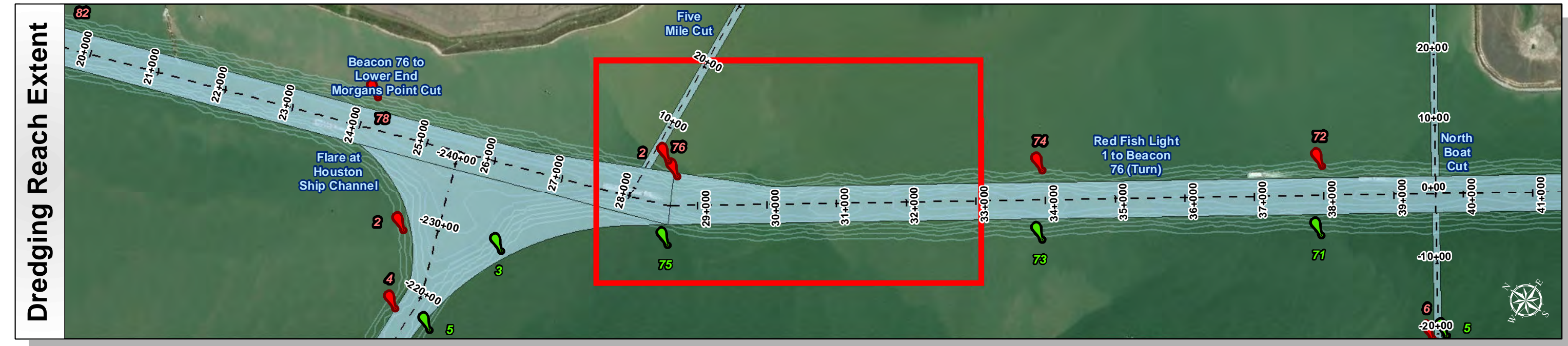
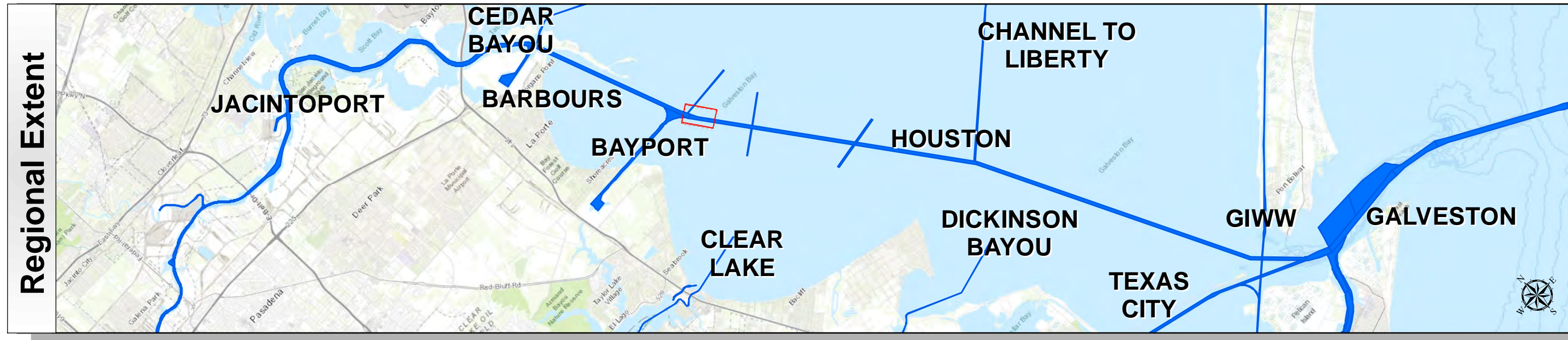
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Page: 18 of 61	Side Slope Ratio: (Rise : Run)
Scale: 1:2,500	Additional Imagery: © DigitalGlobe Inc.
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Additional Info:	

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 HOUSTON, TEXAS

Houston Ship Channel: Red Fish Light 1 to Beacon 76 (Turn)



U.S. Army Corps of Engineers
Galveston District

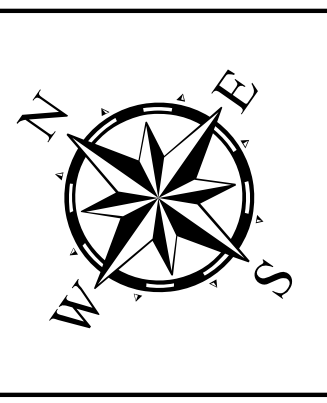


Channel Features	Aids to Navigation	MLLW
— Channel Toe	Green Side Aids	0 - 30, 30 - 35, 35 - 40, 40 - 42, 42 - 44, 44 - 46, 46 - 48, 48 - 50, 50+
- - - Channel Center Line	Red Side Aids	NOAA Bathymetry (DREDGING REACH EXTENT)
— Channel Station Lines	Lights	0 - 10, 10 - 15, 15 - 20, 20 - 25, 25 - 30, 30 - 50
↔ Channel Dimensions		

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Dredging Reach Extent 0 0.25 0.5 1 Miles
Hydrographic Survey Extent 0 215 430 860 Feet

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Page: 19 of 61	Side Slope Ratio: (Rise : Run)
Scale: 1:2,500	Additional Imagery: © DigitalGlobe Inc.
Mapped by: MSAOX PAC	Print Date: 5/20/2019
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