

# Data Acquisition Standard Operating Procedures

## Water Temperature on Coral Reefs in the Florida Keys (ID# 986)

Last Updated: 5/6/2023

### Program Summary

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Coral Reef Evaluation and Monitoring Project (CREMP) has been monitoring temperature along the Florida Reef Tract since 1996. Temperature loggers have been or are being deployed at every active CREMP site, and currently have 52 loggers recording water temperatures on sites ranging from just south of Biscayne National Park to the waters surrounding Dry Tortugas National Park.

### URLs

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- Program - <http://myfwc.com/research/habitat/coral/cremp/temp-monitoring/>
- DDI - <https://data.florida-seacar.org/programs/details/986>

### Contacts

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| Contact Name    | Organization | Email                  | Phone        |
|-----------------|--------------|------------------------|--------------|
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### Data Tables

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- Data\_986A\_Final
- Data\_986A\_Load

### Data Stored Procedures

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- usp\_data\_986A\_Load\_insert
- usp\_combined\_wq\_wc\_nut\_cont\_insert\_986A

# Data Acquisition Standard Operating Procedures: ProgramID 986

Date Created: 01/28/2019

Created By: *Claude Kershaw*

## Data File Path:

1. "\\forest.usf.edu\data\PDrive\CAS-WI\Misc Projects\SEACAR\_FDEP\Data\ID\_0986\_CREMP\_TEMP\DataToLoad\FKNMS\*.xlsx"
2. Spatial Data: "\\forest.usf.edu\data\PDrive\CAS-WI\Misc Projects\SEACAR\_FDEP\Data\ID\_0986\_CREMP\_TEMP\DataToLoad\SiteInfo.xlsx"

DDI URL: <http://dev.seacar.waterinstitute.usf.edu/datadiscovery/programs/details/986>

## Contact Information:

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## Procedure Overview:

1. Use SQL Server Import Export Wizard to load the file "SiteInfo.xlsx" worksheet "CREMP Sites Only" into table **Locations\_986A**.
2. Use SQL Server Import Export Wizard to load the files "FKNMS\*.xlsx" or the "\*CREMP\_Temperature\*.csv" files into table **Data\_986A\_Load**.
3. Execute procedure **usp\_Data\_986A\_Load\_insert** to load the data into table **Data\_986A\_Final**.
4. Add the Monitoring Locations from tables **Locations\_986A** to the **SampleLocation\_Point** table if they do not exist there already.
5. Add new Monitoring Locations into the **SampleLocation** table. This will generate a LocationID for each Monitoring Location.
6. Update the **SampleLocation\_Point** table with the LocationID generated in the **SampleLocation** table. Run procedure **usp\_SampleLocation\_Point\_update** to do this.
7. Update the LocationID column in table **Data\_986A\_Final** with the LocationID in the **SampleLocation** table. Join on the [SiteID] column in **Data\_986A\_Final** and the ProgramLocationID column in **SampleLocation**.

## Data Tables

1. Data\_986A\_Load
2. Data\_986A\_Final

## Data Stored Procedures

1. usp\_Data\_986A\_Load\_insert

2. usp\_SampleLocation\_Point\_update

#### GIS Procedures

1. The Monitoring Location information is found in the table **Locations\_986A**.
2. Complete steps 4 through 7 in the “Procedure Overview” section of this document.

```

SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
CREATE PROC [dbo].[usp_combined_wq_wc_nut_cont_insert_986A]
AS
BEGIN
SET NOCOUNT ON;
SET XACT_ABORT ON;

-- Constants - PLEASE SET NOW!!
DECLARE @dataLoadCode varchar(10) = '986A';
DECLARE @combinedTable varchar(50) = 'Combined_WQ_WC_NUT_cont';

-- Setup data load
DECLARE @runBy varchar(50) = SYSTEM_USER;
DECLARE @programID int, @dataStreamID int, @parameterID int;

SELECT @dataStreamID = DataStreamID,
@programID = ProgramID
FROM DataStreamProcedure
WHERE DataLoadCode = @dataLoadCode;
ÿ
-- Delete previous data
exec usp_delete_combined @dataStreamID, @combinedTable
ÿ
-- Insert data
SET @ParameterID = 3 -- Temp
INSERT INTO Combined_WQ_WC_NUT_cont (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate,
ResultValue, DateAdded)
SELECT @programID, @dataStreamID, @parameterID, LocationID, [datetime], Temp_C, GETDATE()
FROM Data_986A_Final a
Where LocationID is not null

exec usp_combined_data_tracking_insert @parameterID = @parameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy

/*
SELECT *
FROM Combined_WQ_WC_NUT_cont

SELECT *
FROM Data_986A_Final

SELECT *
FROM Combined_Parameters a
join Indicator b on a.IndicatorID = b.IndicatorID
where b.Habitat = 'Water Column'
and b.IndicatorName <> 'Nekton'

SELECT *
FROM DataStreamProcedure
WHERE ProgramID = 986

SELECT *
FROM Combined_Data_tracking
where programid = 4055
ÿ
DELETE
FROM Combined_WQ_WC_NUT_cont
WHERE DataStreamID = 136
*/
END

```



```

SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
CREATE PROC [dbo].[usp_data_986A_Load_insert]
AS
BEGIN
SET NOCOUNT ON
SET XACT_ABORT ON

-----DONT RUN THIS
---- Update time to actual time
--
--UPDATE a--updates time where it is 0.01 -> 0.99
--SET a.Time = CAST(DATEADD(MINUTE, CAST(a.Time as decimal (5,2)) * 60, 0) AS time(0))
--FROM Data_986A_Load a
--WHERE ISNUMERIC(a.Time) = 1
--AND CAST(a.Time as decimal (5,2)) < 1
--AND CAST(a.Time as decimal (5,2)) > 0
--
--
--UPDATE a--updates time where it is whole numbers
--SET a.Time = TIMEFROMPARTS(CAST(a.Time as decimal (5,0)), 0,0,0,0)
--FROM Data_986A_Load a
--WHERE (ISNUMERIC(a.Time) = 1 AND CAST(a.Time as decimal (5,2)) > 1)
--OR (ISNUMERIC(a.Time) = 1 AND CAST(a.Time as decimal (5,2)) = 0)
--OR (ISNUMERIC(a.Time) = 1 AND CAST(a.Time as decimal (5,2)) = 1)
--
-- Insert into the final table
INSERT INTO Data_986A_Final (Date, Time, Temp_C, Temp_F, Site, siteid, Region, Habitat)
SELECTDATEFROMPARTS(a.Year, a.Month, a.Day), CAST(a.Time as decimal (5,0)), TempC, TempF, Site_name,
Siteid, NULL, NULL
FROM Data_986A_Load a
WHERE (CAST(a.Time as decimal (5,2)) >= 1 OR CAST(a.Time as decimal (5,2)) = 0) -- exclude the time
in decimal format
AND NOT EXISTS ( SELECT *
FROM Data_986A_Final b
WHERE a.SiteID = b.siteid
AND DATEFROMPARTS(a.Year, a.Month, a.Day) = CAST(b.Date as date)
AND a.Site_name = b.Site
AND CAST(a.TempC as decimal (6,3)) = CAST(b.Temp_C as decimal (6,3))
AND CAST(a.Time as decimal (5,0)) = b.Time
)

--create the datetime value from the date
UPDATE f
SET [datetime] = CAST(CAST(CAST(f.Date as date) as varchar)+' '+CAST(CAST(f.time as int) as
varchar)+':00' as datetime)
FROM Data_986A_Final f
WHERE [datetime] is null

--LocationID
UPDATE a
SET a.LocationID = b.LocationID
FROM Data_986A_Final a
INNER JOIN SampleLocation b on a.siteid = b.ProgramLocationID
where b.ProgramID = 986
and a.locationid is null

END

```

GO