



Fisheries and Oceans  
Canada

Pêches et Océans  
Canada

Canadian  
Coast Guard

Garde côtière  
canadienne



Safety First, Service Always



# REVIEW OF 2016-2017 ICEBREAKING SEASON



Homeland  
Security



United States  
Coast Guard 

# Ice Coverage 2016-17



**Extended Navigation**

**Closed Season**

**Spring Breakout**

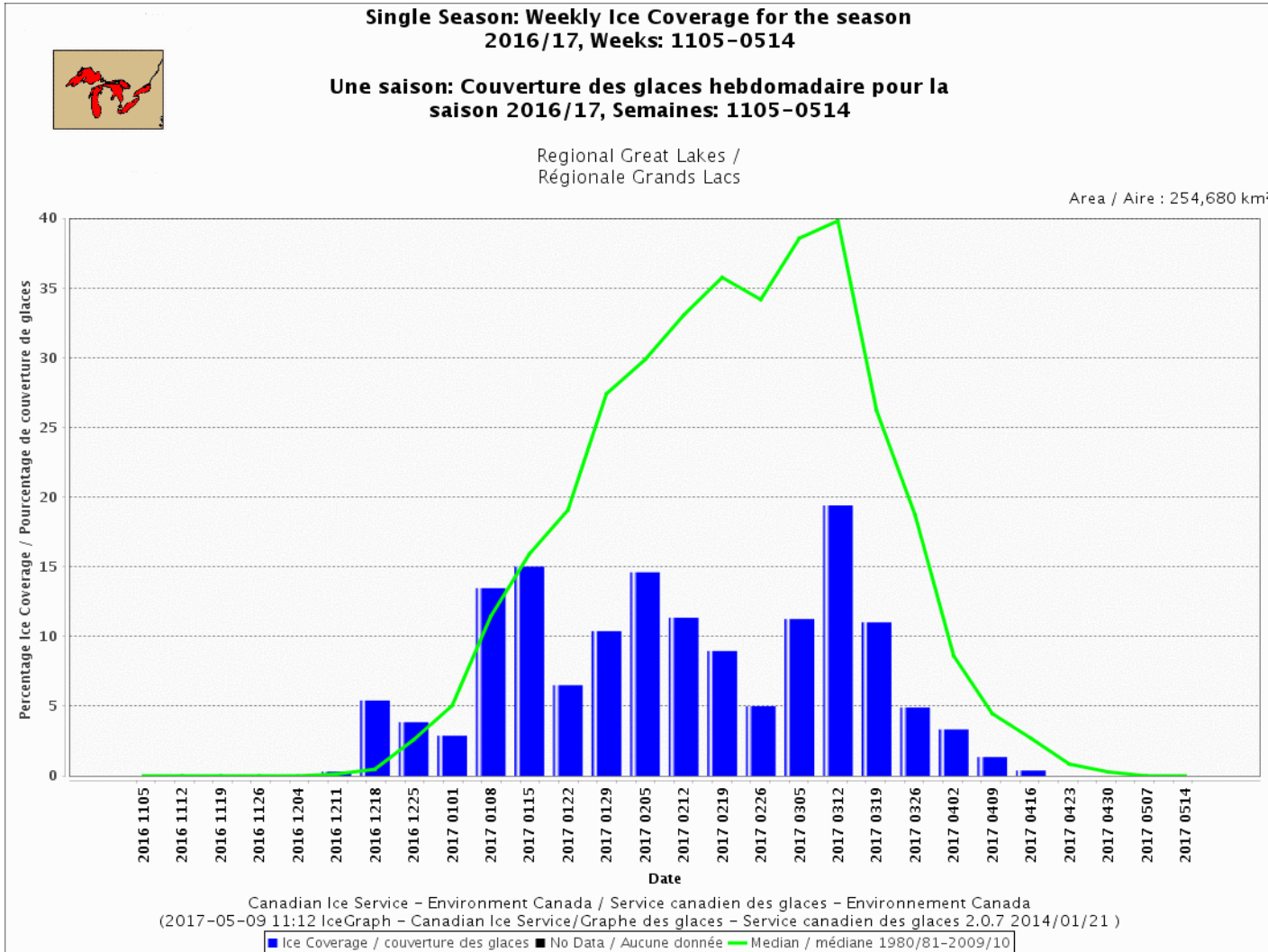
19DEC Taconite Commences

20DEC Coal Shovel Commences

29MAR Coal Shovel Concludes

11APR Taconite Concludes

# Ice Coverage 2016-17



Homeland Security

United States Coast Guard

# Ice Coverage 2016-17

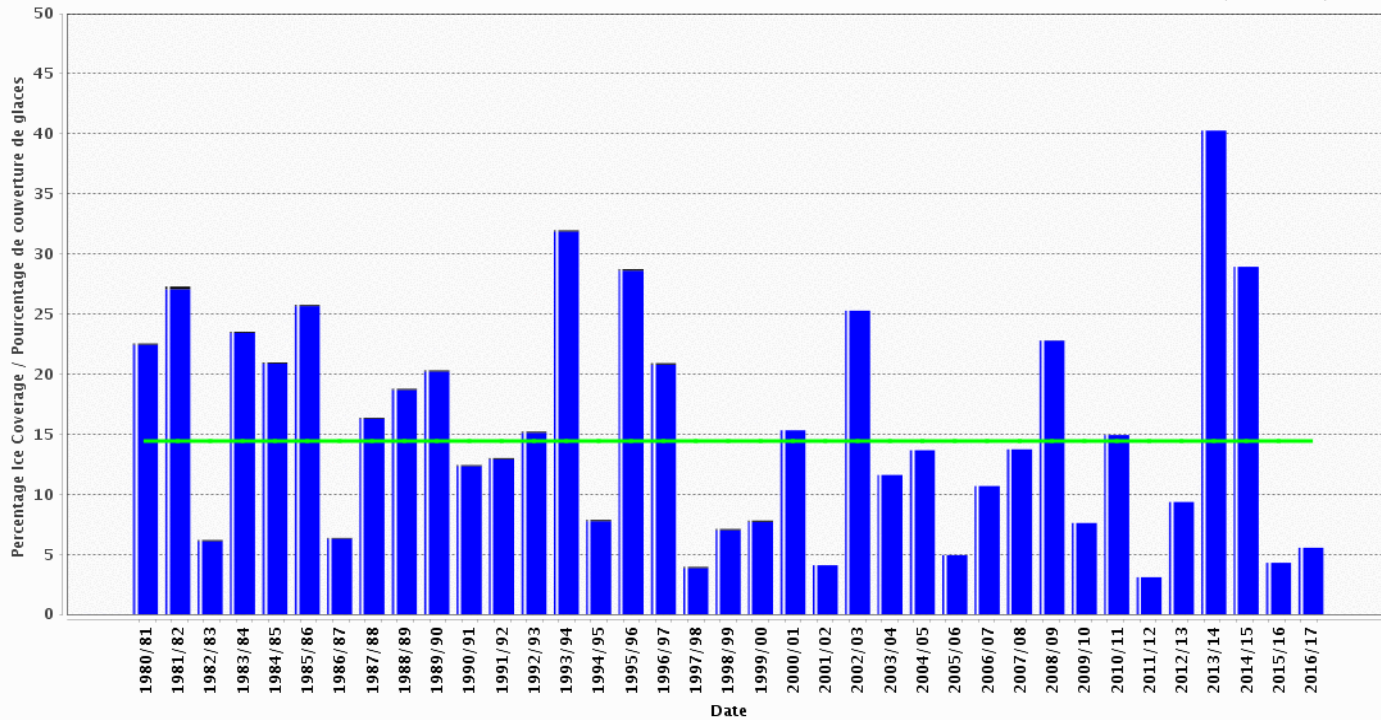


**Historical Total Accumulated Ice Coverage (TAC) for the weeks 1105-0507, seasons:1980/81-2016/17**

**Total accumulé de la couverture des glaces historique (TAC) pour les semaines 1105-0507, saisons:1980/81-2016/17**

Regional Great Lakes /  
Régionale Grands Lacs

Area / Aire : 254,680 km<sup>2</sup>



Canadian Ice Service - Environment Canada / Service canadien des glaces - Environnement Canada  
(2017-05-09 11:12 IceGraph - Canadian Ice Service/Grappe des glaces - Service canadien des glaces 2.0.7 2014/01/21)

■ Ice Coverage / couverture des glaces ■ No Data / Aucune donnée — Median / médiane 1980/81-2009/10



Homeland Security



# Ice Coverage

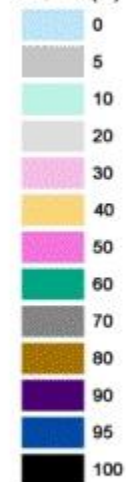
GLERL Digital Ice Chart for F  
Geographic Coordinate System: GCS North Ame  
Datum: D North Ame

February 8, 2017

Maximum Ice Coverage: 14.2%



Ice Cover (%)



0 50 100 150 200  
Kilome

0 25 50 100 150 200  
Mile



# CCG Operations



- **Operations began on 21<sup>st</sup> December 2016**
  - **104** days of ice breaking
  - **2,496** hours of which **405.23** direct assistance hours
  - assisted **1422** commercial vessels transits
  - **35** of these transits required direct ice breaking assistance
  - Operations ended on 03 April 2017

## CCGS SAMUEL RISLEY



## CCGS GRIFFON

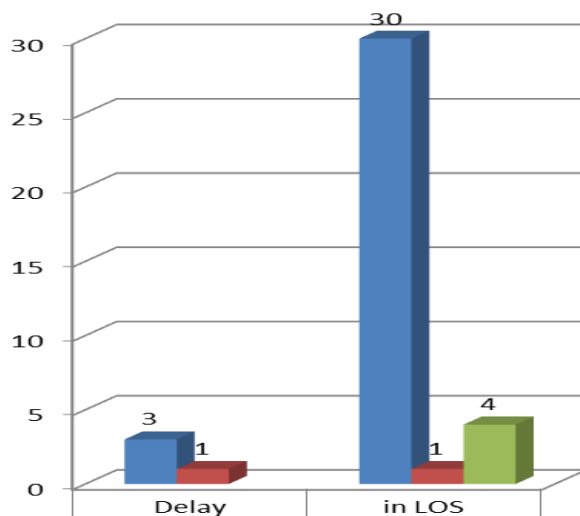


Commissioned	1984	1970
Length	69.7 m (229 ft)	71.3 m (234 ft)
Beam	13.7 m (45 ft)	14.9 m (49 ft)
Horsepower	6595 kW (9000 hp)	3984 kW (5342 hp)
Ice Breaking Capability	3 kts through uniform first year ice (3.0 ft)	3 kts through uniform first year ice (2.0 ft)

# CCG Performance Standards



- The charts below demonstrate that the majority of the Canadian Coast Guard services were provided within levels of services standards.



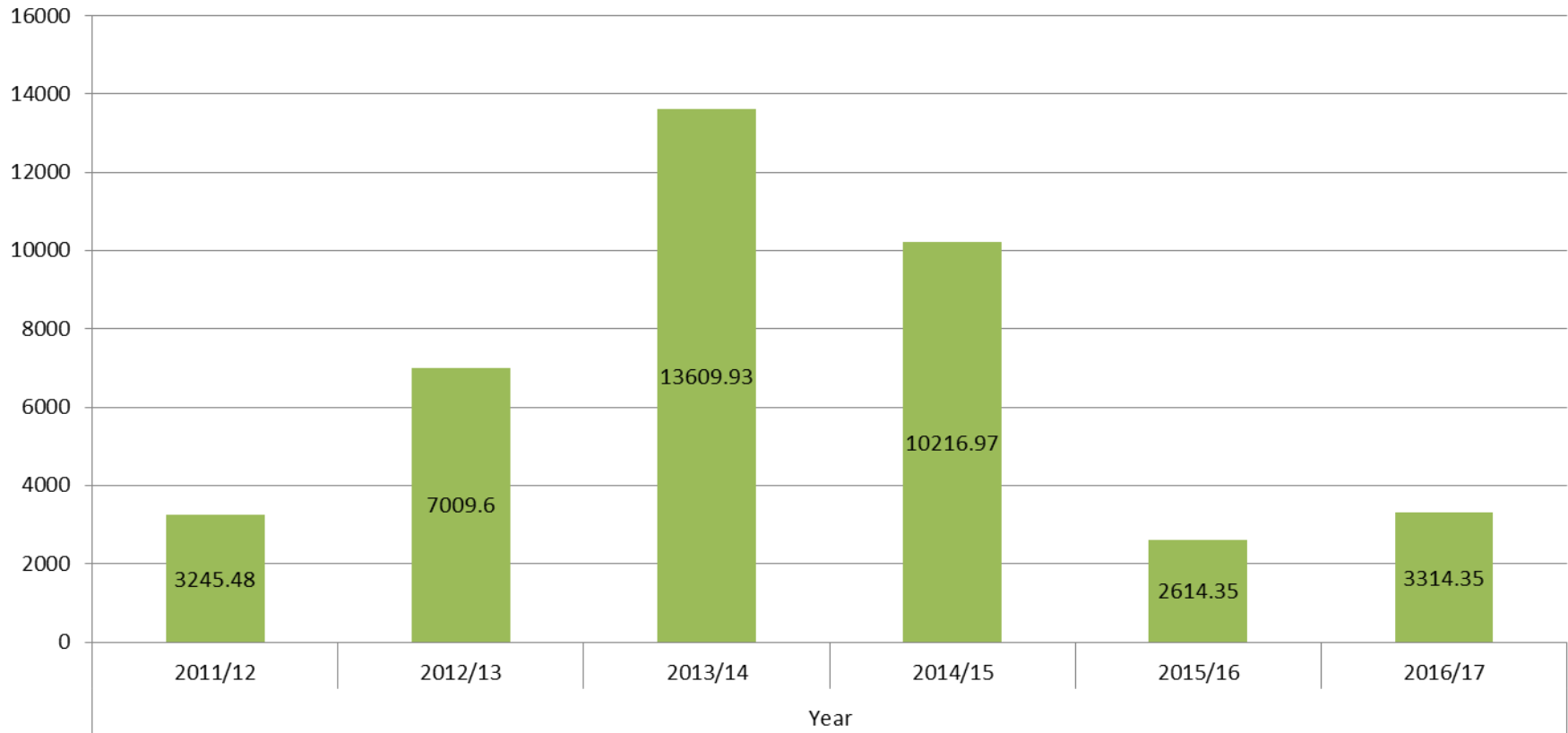
	Delay	in LOS
■ 2101 - Escort/Assist through ice covered waters	3	30
■ 2103 - Freeing beset vessels	1	1
■ 2301 - Commercial Harbour Breakout		4



# Combined Icebreaking Hours



## Total Hours USCG and CCG combined

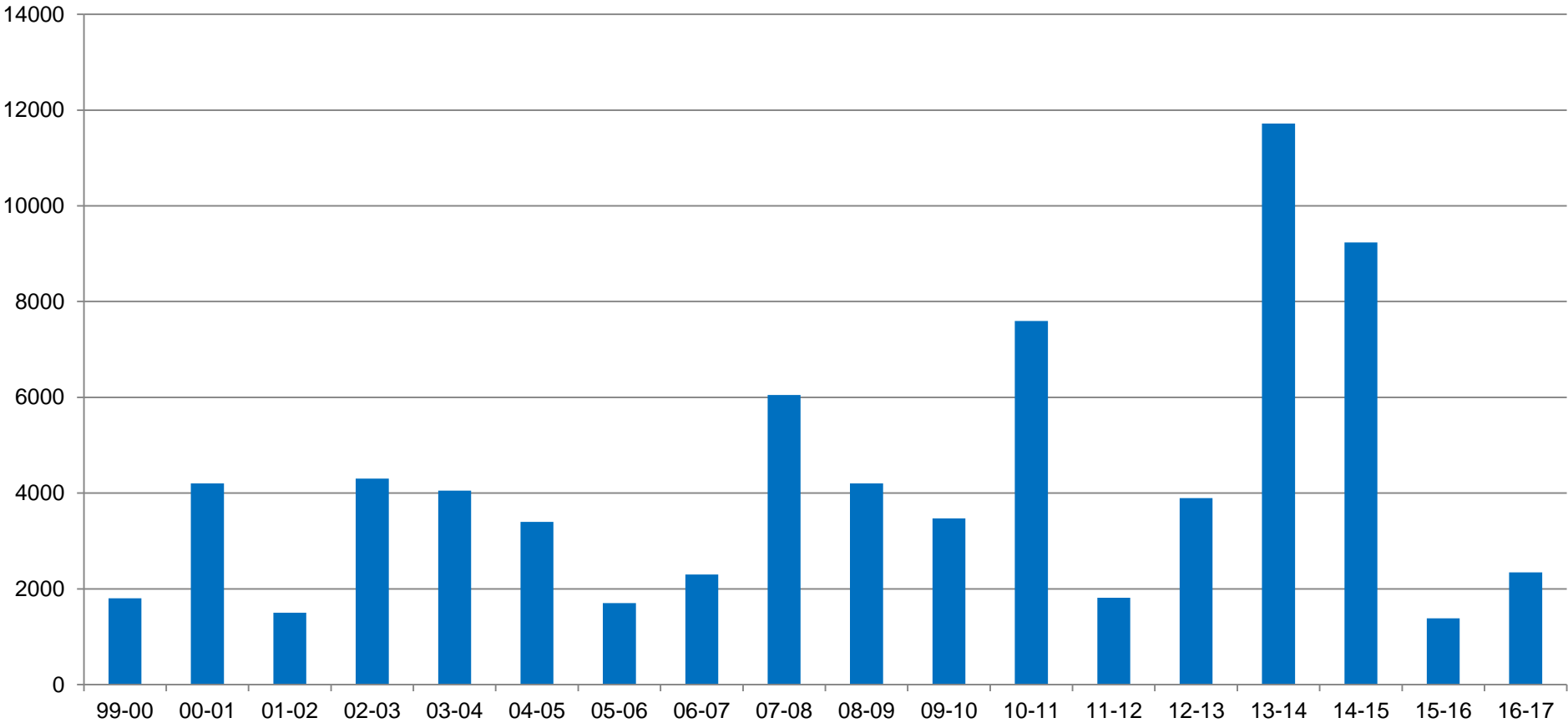




# USCG D9 Icebreaking Hours Last 17 Years



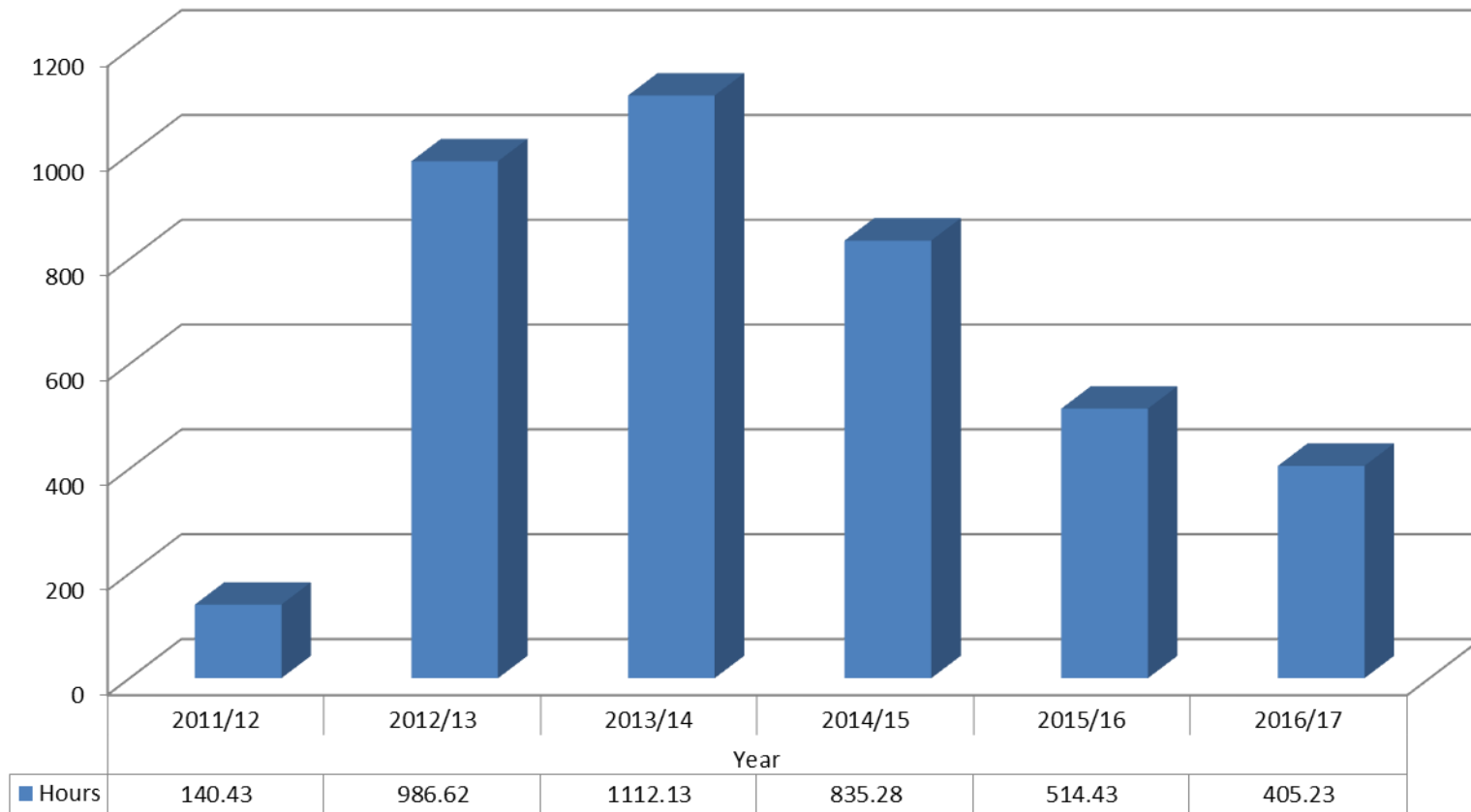
## USCG Icebreaking Hours by Year



# CCG Icebreaking hours per season



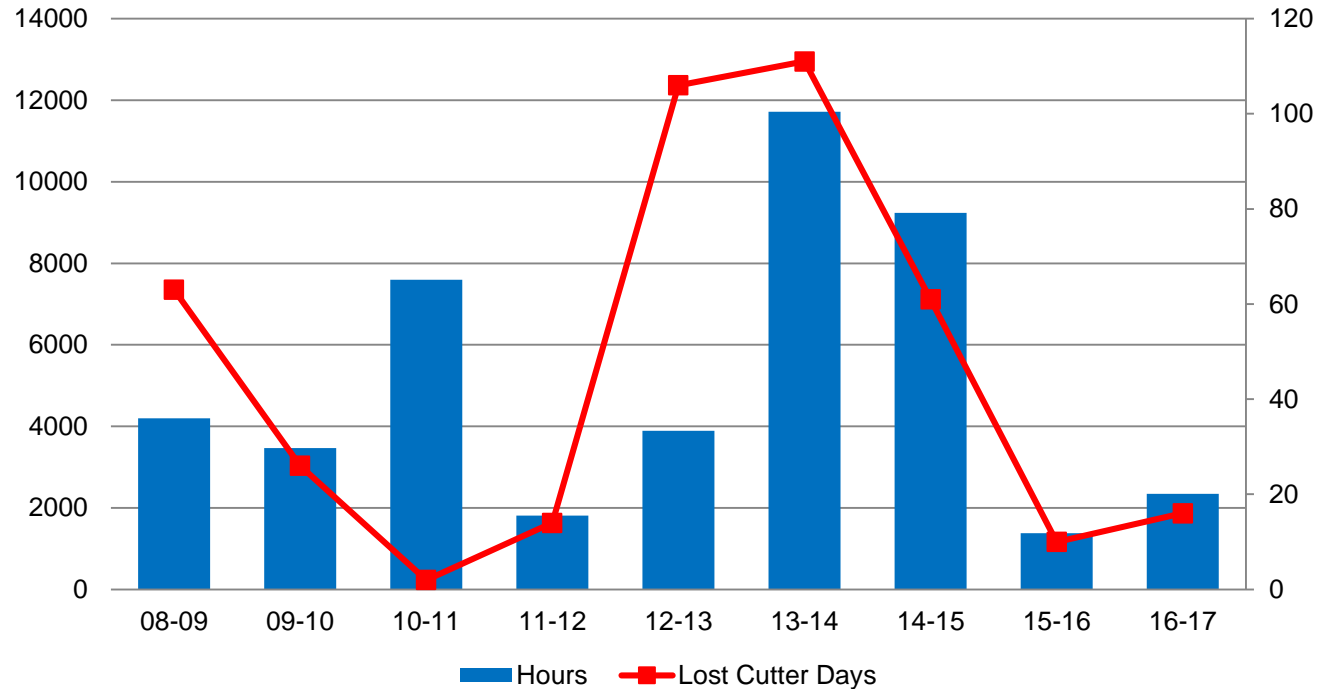
## Hours per season for the last 6 years



# USCG Lost Cutter Days (Historical)



## USCG Cutter Hours and Lost Cutter Days

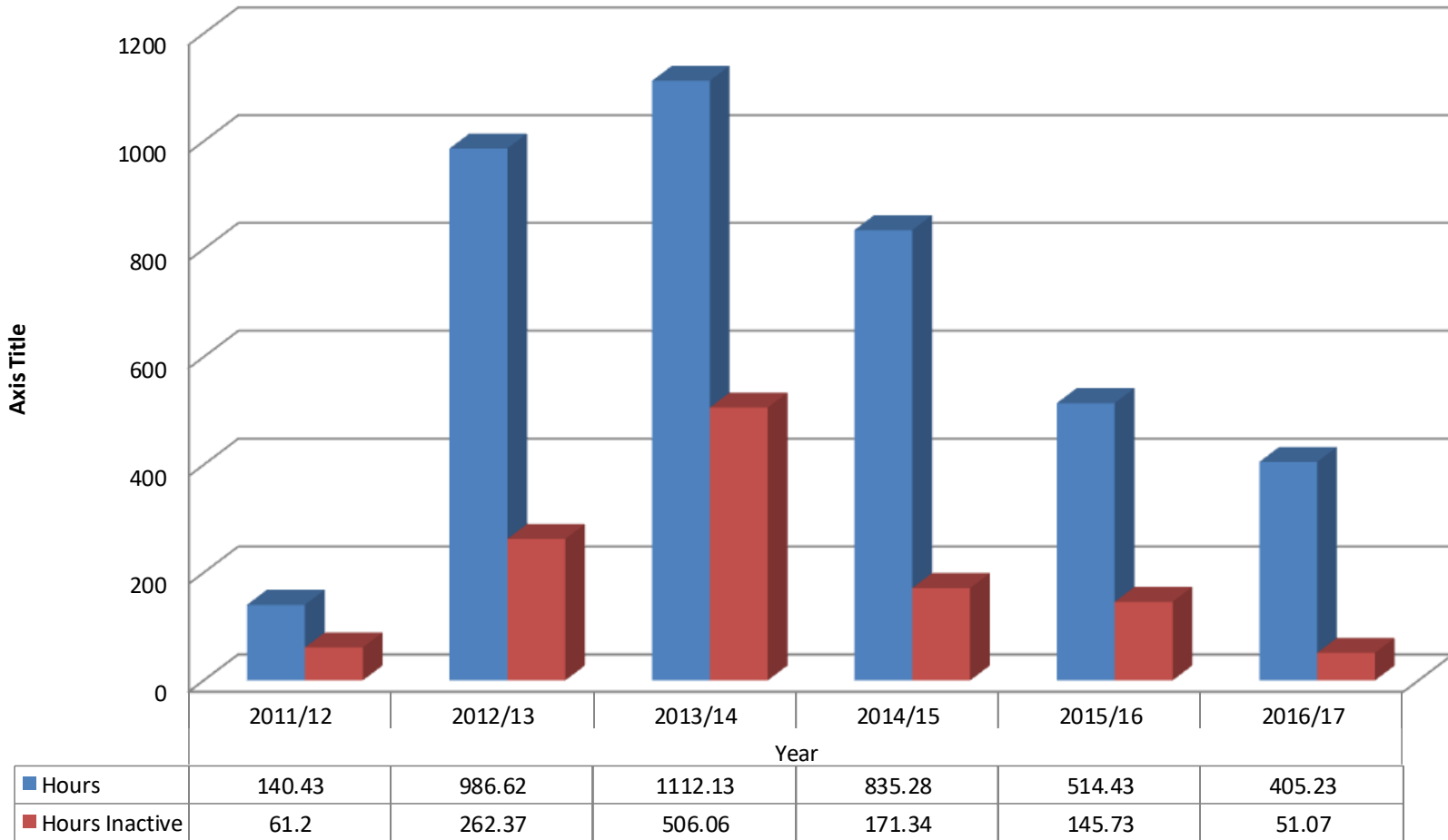


	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	Average
<b>Total</b>	<b>63</b>	<b>26</b>	<b>2</b>	<b>14</b>	<b>106</b>	<b>111</b>	<b>61</b>	<b>10</b>	<b>16</b>	<b>45</b>

# CCG Total Hours and Inactive Hours



## Canadian Coast Guard - Total Hours and Inactive Hours



# Questions?

