

モデル

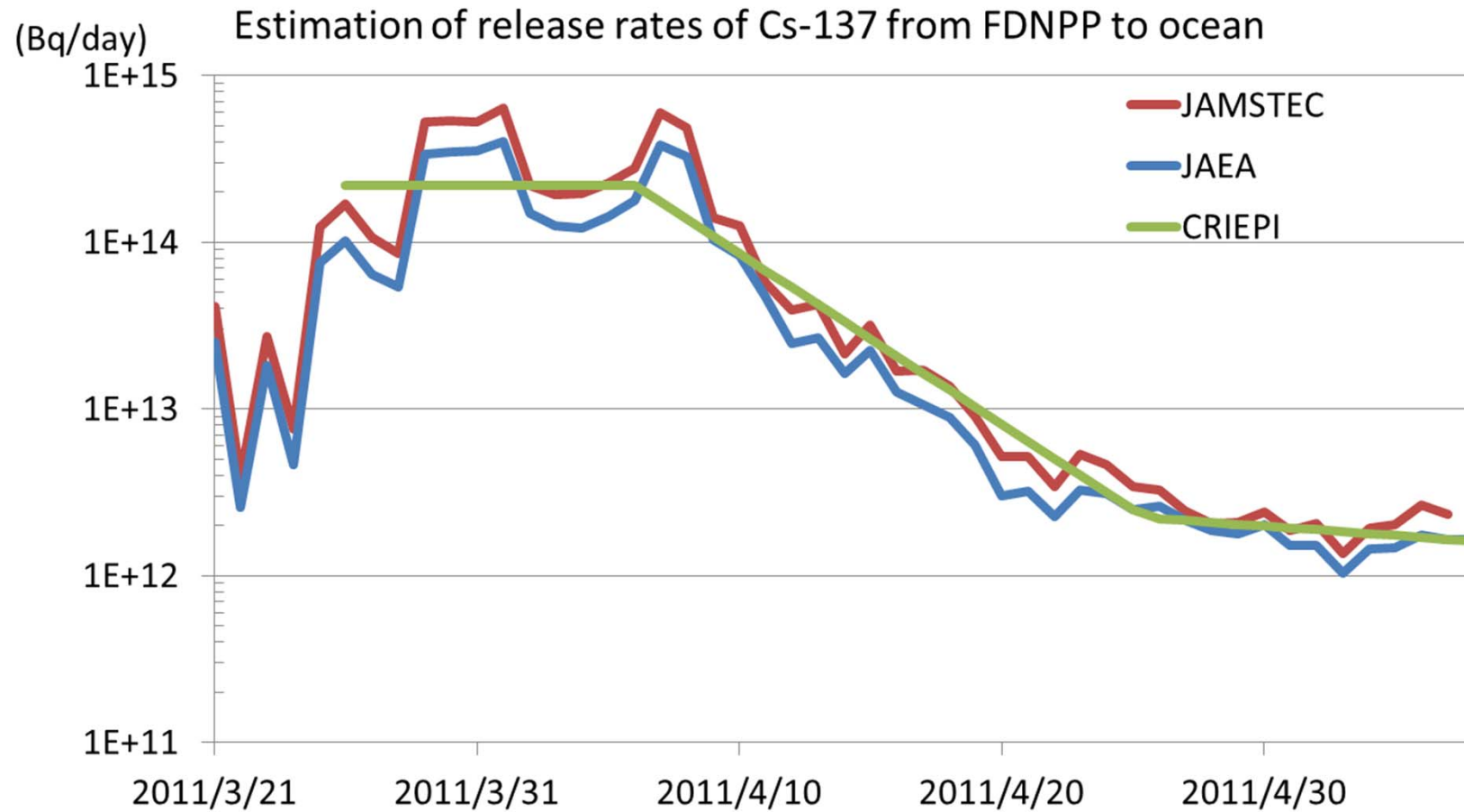
Institution	Base model		Resolution ¹⁾	Nesting (Parent model)	Winds	Data assimilation	Tides
	Circulation	Dispersion					
JAEA	Kyoto U./ JMSF ²⁾	SEA- GEARN ³⁾	1/72° x 1/54°	2-step, (1/24°x1/18° near Japan, 1/8°x1/6° North Pacific, Kyoto U./JMSF ²⁾)	NCEP reanalysis 2 ⁴⁾ and JMA- MSM ⁵⁾	4D-VAR	No
CRIEPI	ROMS ⁶⁾	Passive tracer	1 km	1-step, (1/12° HYCOM ⁷⁾)	NuWFAS ⁸⁾	Included in HYCOM	Yes
JAMSTEC	JCOPE ⁹⁾	Passive tracer	1/36°	2-step, (1/12° Northwest Pacific, 1/4° North Pacific, JCOPE2 ⁹⁾)	NCEP Forecast and JMA- MSM	3D-VAR in JCOPE2	Yes

¹⁾ The finest grid spacing is shown, if grid system is variable in space. ²⁾ Kyoto University and Japan Marine Science Foundation (Ishikawa et al. 2009); ³⁾ Kobayashi et al. (2007); ⁴⁾ Kanamitsu et al. (2002); ⁵⁾ Japan Meteorological Agency – Meso-Scale Model; ⁶⁾ Regional Ocean Modeling System (Shchepetkin and McWilliams 2005); ⁷⁾ HYbrid Coordinate Ocean Model (<http://hycom.org/>); ⁸⁾ Numerical Weather Forecasting and Analysis System (Hashimoto et al. 2010); ⁹⁾ Japan Coastal Ocean Prediction Experiment (Miyazawa et al. 2010);

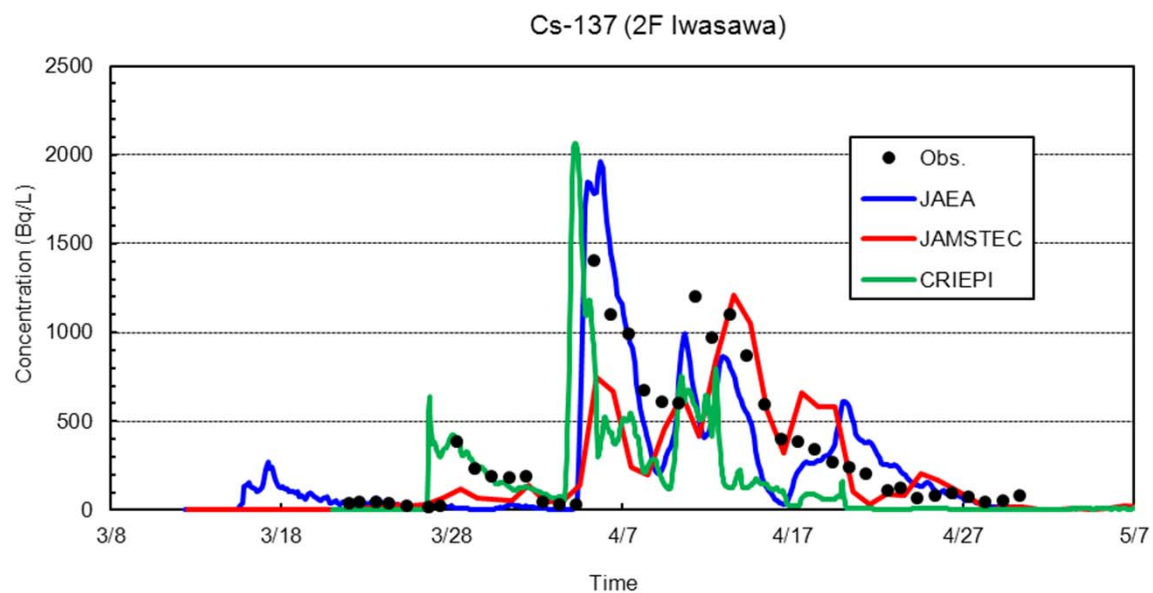
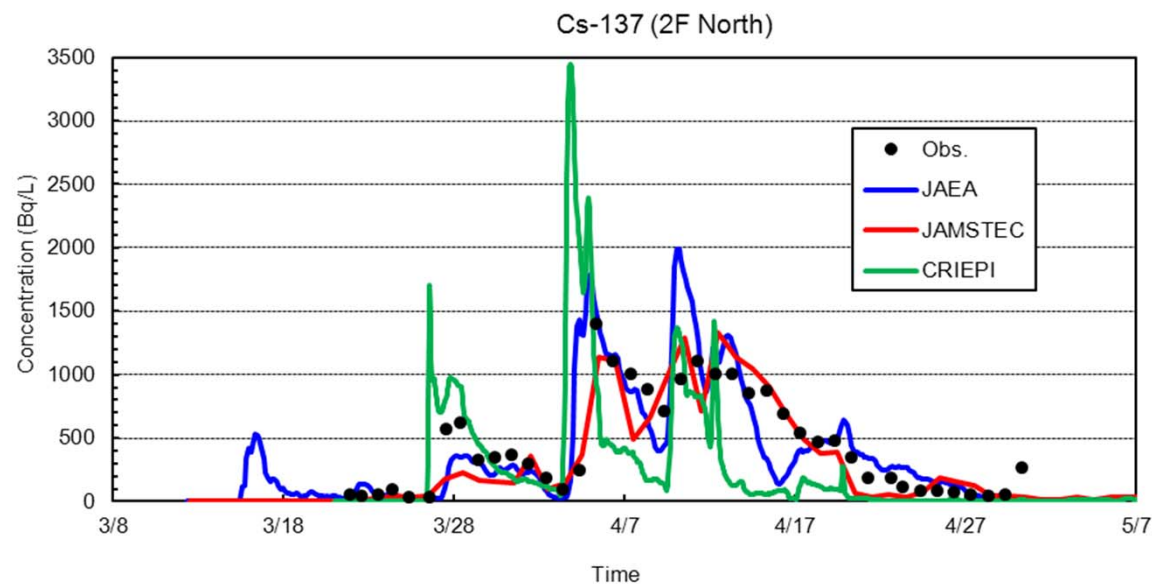
推定 総放出量 (Cs-137)

Institution	Period	¹³⁷ Cs (PBq)	Method	使用データ
JAEA	Mar.21~Dec 27 Mar.26~May 7	3.7 3.5	Based on observed data	東電
CRIEPI	Mar.26~May 31 Mar.26~May 7	3.5 3.5	Unit release exp. with adjustment to observed values	東電
JAMSTEC	Mar.21~May 7 Mar.26~May 7	5.6 5.4	Boundary condition with observed data	東電、文部科学省、大洗町、日本郵船、みらい、淡青丸の観測データを用いて、グリーン関数法で推定

推定放出量 (Cs-137)



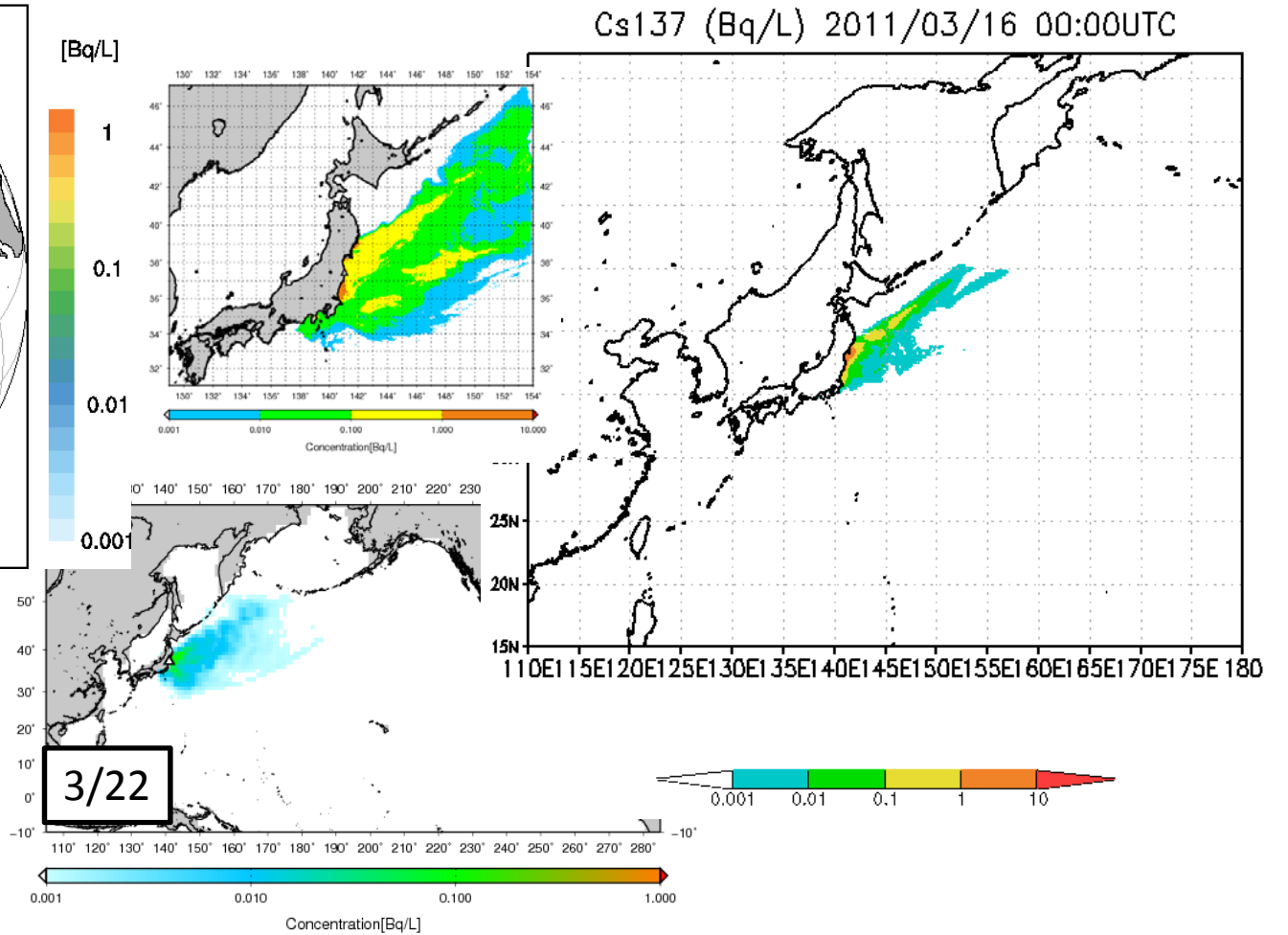
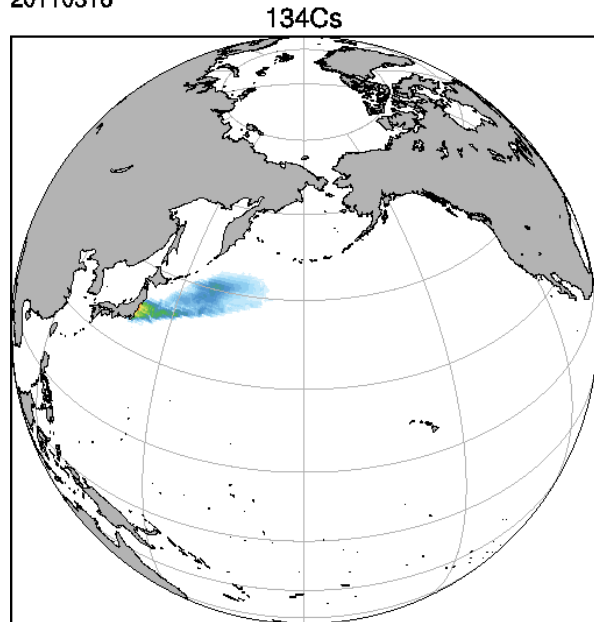
拡散状況(沿岸) 観測値との比較



拡散状況(近海～太平洋) 3/16

表層Cs濃度(大気沈着あり)

20110316



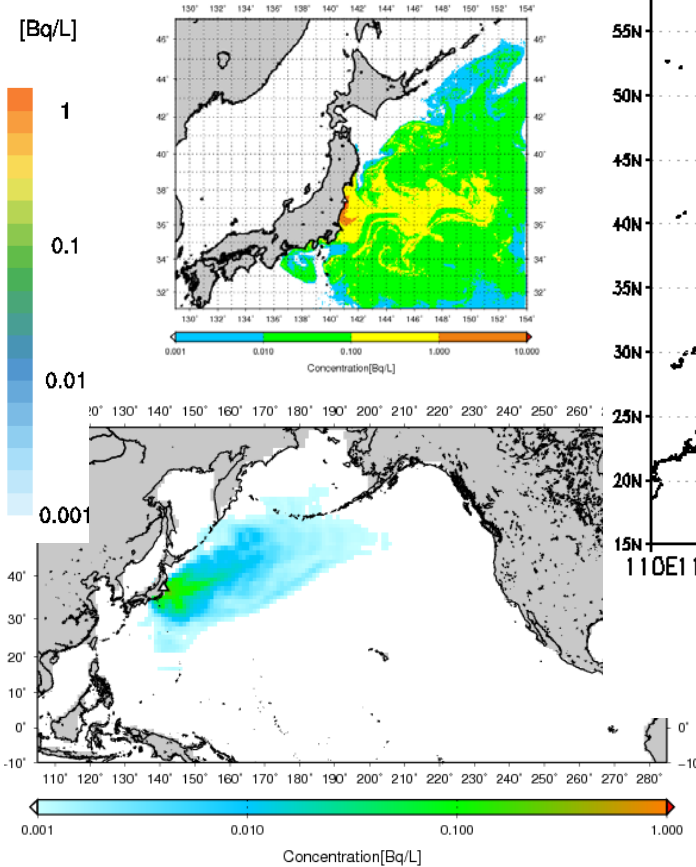
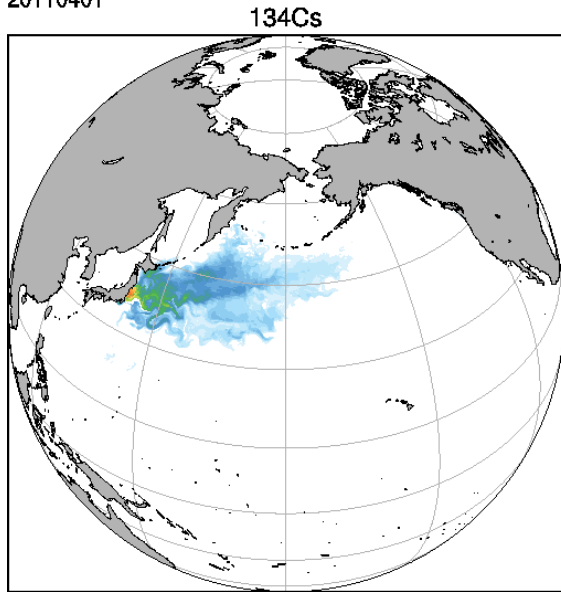
CRIEPI

JAEA

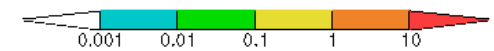
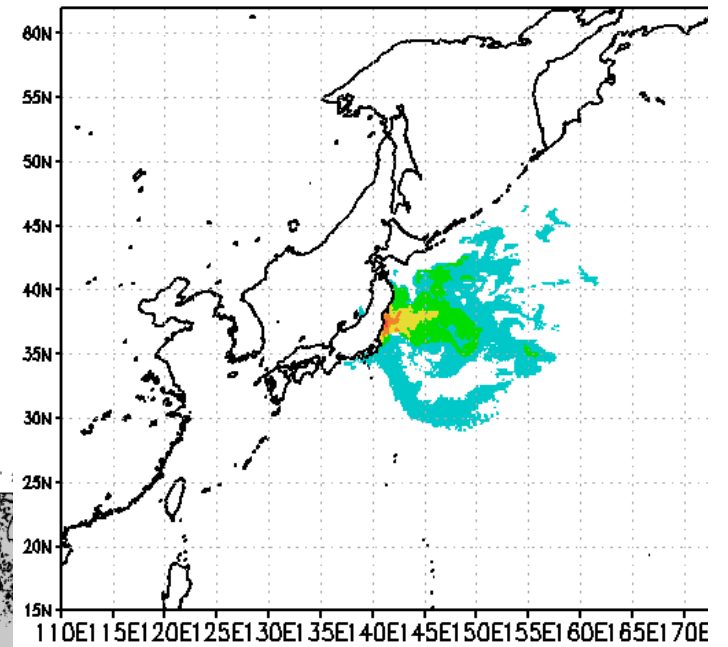
JAMSTEC

拡散状況(近海～太平洋) 4/1 表層Cs濃度(大気沈着あり)

20110401



Cs137 (Bq/L) 2011/04/01 00:00UTC



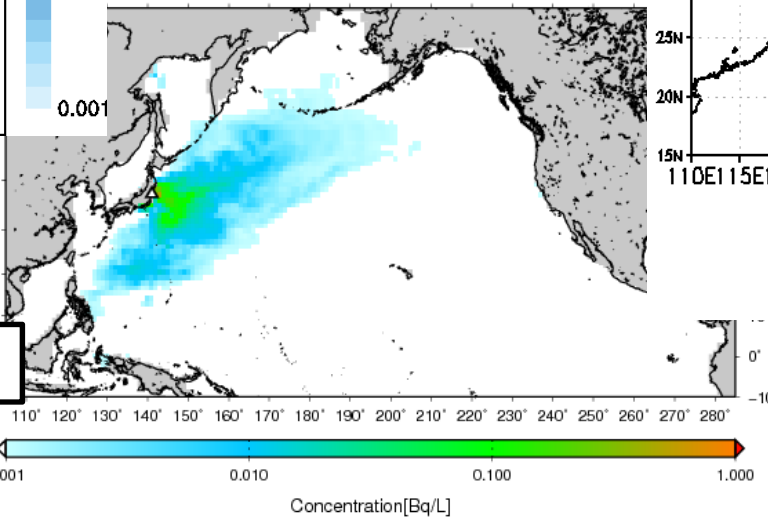
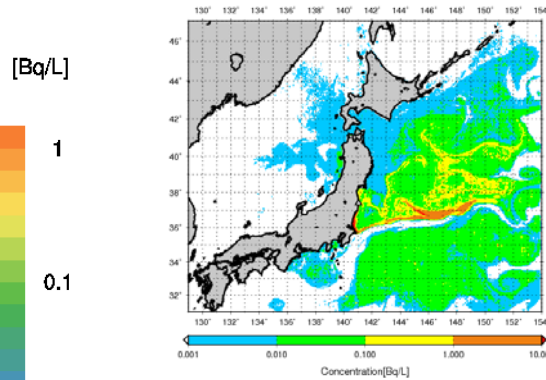
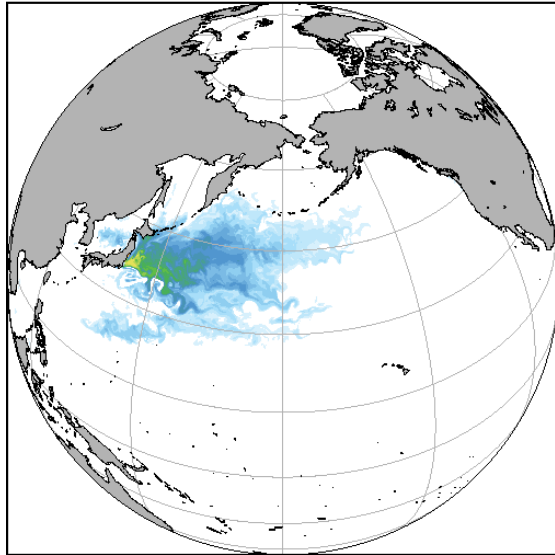
CRIEPI

JAMSTEC

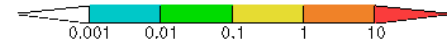
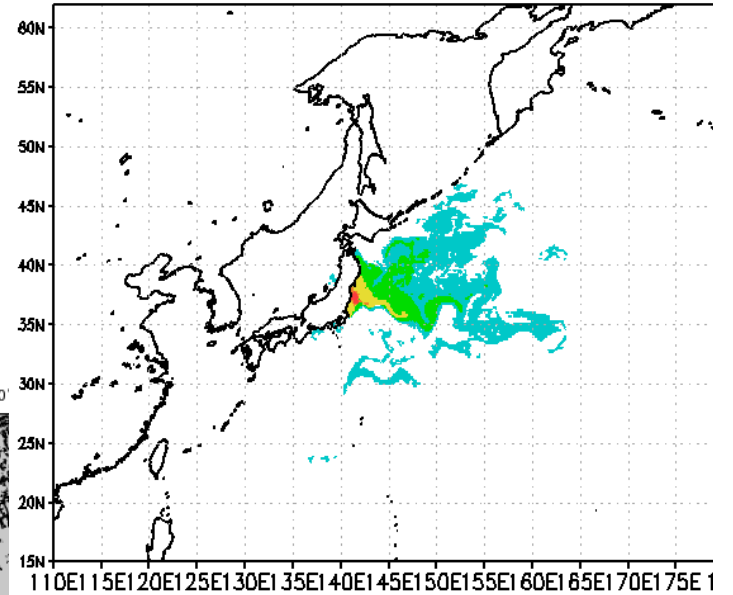
拡散状況(近海～太平洋) 4/16 表層Cs濃度(大気沈着あり)

20110428

¹³⁴Cs



Cs137 (Bq/L) 2011/04/16 00:00UTC



CRIEPI

JAEA

JAMSTEC

論点整理(海洋放出量)

1. 放射能比($^{131}\text{I}/^{137}\text{Cs}$)が異なる3月25日以前を海洋からの直接放出と評価するか？
2. 総放出量の評価期間？
(開始日と終了日の設定)
3. 総放出量は？誤差は？

論点整理(海洋拡散過程)

1. 海洋モニタリングの値をどこまで再現できているか？
(一致度と不確実性)
2. 解析結果から南下及び離岸過程のプロセスを特定できるか？
(プルームの動き、気象・海象要因)
3. 再現性へのモデル計算過程・解析手法の影響は？
(再現できなかったケースの要因:海流場、拡散・沈着過程)
4. 再現性向上に必要な改良は？ それは可能か？
(海流場の再現性、拡散計算で考慮・改良すべきプロセス)
5. 今後さらにどのような解析またはモデル開発を進めるべきか？