

## THOR Deliverable List

Del. No.	Deliverable name	WP no.	Lead beneficiary	Estimated indicative person-months	Nature	Dissemination level	Delivery date (proj. month)
D1	Working data and WEB server available for partners, consortium agreement signed.	6.1	1	2	D	PP	1
D2	Data standards and policy defined	6.1	1	2	D	PP	3
D3	Design and implementation of public THOR WEB site	6.1	1	4	D	PU	6
D4	Up to date estimates of ocean state	2.1	3	23	R	PU	ongoing
D5	Initial evaluation of ocean reanalyses and simulations of THC-related variables, from approximately 1960-present, against independent observations.	2.1	3	20	R	PU	12
D6	Reference data set for pre-existing data on properties and fluxes through key sections: Greenland-Scotland Ridge, Deep Western Boundary Current and across 26.5° N.	3.1	5	40	R	PP	12
D7	Reference data set for pre-existing data on properties, water mass renewal in the Labrador and Irminger Seas	3.2	8	10	R	PU	12
D8	Summary data set for historical overflow entrainment studies	3.3	12	30	R	PU	12
D9	Report on test data set experiments from coupled model.	5.2	1	25	R	PP	12
D10	Scientific Report to Commission	6.1	1	13	R	PP	18
D11	Financial Report to Commission.	6.1	1	12	R	PP	18
D12	Establish the main statistical signatures of THC variability on decadal to multi-decadal time scales and the role of variability for heat and fresh water transports	1.1	2	44	R	PU	24

D13	Providing a time series of the variability of integrated exchanges with the Nordic Seas and the intensity of the individual deep branches of the THC over the last millennium from paleo data.	1.2	5	80	R	PP	24
D14	Assessment of possible fresh water input from Greenland ice sheet mass loss, from two climate models including (different) interactive ice sheet models.	2.2	2	29	R	PP	24
D15	Assessment of processes linking climate variability in the Nordic and Labrador Seas with the overflows and THC, and its dependence on model resolution and physics.	2.3	8	41	R	PU	24
D16	Assessment of the ability of the MPI model to reproduce the strength, structure and variability of the THC at the key sections	3.1	5	22	R	PP	24
D17	Data set and entrainment estimates from FBC experiments.	3.3	12	50	R	PP	24
D18	Report on test field deployment and system handling of the Kiel and Bergen systems.	5.1	8	8	R	PP, P	24
D19	Analyses of sensitivity experiments on THC adjustment: the response of the THC to changes in deep water formation and on coupled and uncoupled modes of variability.	1.1	2	44	R	PP	36
D20	Providing a data set describing the spatial evolution of SST and thermocline variability associated with changes in the THC at multi-decadal resolution in the North Atlantic during the last millennium.	1.2	5	78	R	PP	36
D21	Recommendation of key factors (observations, model resolution, data assimilation methods) to improve analyses of ocean THC state.	2.1	3	10	R	PU	36
D22	Assessment of feedbacks of THC changes on the Greenland ice sheet	2.2	2	20	R	PP	36

D23	Assessment of uncertainty in THC predictions arising from limited ocean resolution and uncertain physics in current generation climate models.	2.3	8	40	R	PP	36
D24	Strategy for monitoring fluxes across the shallow parts of the Greenland-Scotland Ridge	3.1	5	10	R	PP	36
D25	Reference data set on long-term variability AR7E section.	3.2	8	10	R	PU	36
D26	Data set and entrainment estimates from DS experiments.	3.3	12	50	R	PP	36
D27	Report on assessment of decadal predictability of THC.	4.1	9	77	R	PP	36
D28	Assessment of the impact of ocean observations on the predictability of the THC.	4.2	3	24	R	PP	36
D29	Report on the initial system performance of both systems.	5.1	8	7	R	PP	36
D30	Report on tests of tangent linear and adjoint code and of tests of Planet Simulator assimilation system.	5.2	1	40	R	PP	36
D31	Scientific Report to Commission.	6.1	1	13	R	PP	36
D32	Financial Report to Commission.	6.1	1	12	R	PP	36
D33	Synthesis of main dynamics and feedbacks of decadal to centennial variability in the different coupled models and assessment of the role of the ocean in the variability seen in the Millennium climate.	1.1	2	44	R	PU	48
D34	Updated evaluation of ocean state estimates, taking account of new observations during the project (historical surface salinity plus new observations from CT3 and outside).	2.1	3	20	R	PU	48
D35	Recommendation of model development priorities to improve THC forecasts in future.	2.2, 2.3	2	10	R	PP	48
D36	Final data set for fluxes across key sections, from observational and modelling approaches.	3.1	5	76	R	PP	48

D37	Final data sets for convection sites and AR7E overturning	3.2	8	45	R	PP	48
D38	Time series data of freshwater transport in the EIC.	3.3	12	36	R	PP	48
D39	Report on assessment of relative impact of initial conditions, greenhouse gases and model parameter uncertainty on decadal predictability of THC.	4.1	9	91	R	PU	48
D40	Assessment on decadal predictions of the thermohaline circulation up to 2030	4.2	3	24	R	PU	48
D41	Report on ocean observing systems needed for decadal predictions of the THC	4.2	3	23	R	PU	48
D42	Report on the use of near real time data transmission systems and their potential to increase the accuracy of Atlantic Thermohaline Circulation assessments and predictions	5.1	8	10	R	PP	48
D43	Synthesis report on pilot experiments of coupled assimilation system	5.2	1	40	R	PU	48
D44	Overall assessment of priorities for observing system, data assimilation and model develop for a quasi-operational THC decadal forecast system.	6.1, all	1	40	R	PU	48
D45	Final Scientific Report to Commission.	6.1	1	15	R	PP	48
D46	Final Financial Report to Commission.	6.1	1	15	R	PP	48

TOTAL

1338