

## 国際数値予報シンポジウム

日時：昭和35年11月7日（月）～12日（土）。午前9時より午後5時まで。（詳細は下のプログラム参照）

場所：都市センター（千代田区平河町）。

受付：11月6日（日）午後1時より5時迄と7日（月）午前8時30分より12時迄都市センター入口で行います。

### TIME SCHEDULE

#### First Day: Monday, November 7

9:00

Welcome and opening remarks by Sigekata Syōno (President of Meteorological Society of Japan), and

Addresses by Kiyoo Wadati (Director General of Japan Meteorological Agency) and D. A. Davies (Secretary-General of the World Meteorological Organization)

#### Morning Session I

9:10~10:40

#### SUMMARY REPORTS

*Chairman:* Robert D. Fletcher.

Bert Bolin: Recent work on numerical weather forecasting in Sweden.

J. van Isacker: Theoretical and experimental research on numerical weather prediction in Belgium.

Günther Hollmann: Summarizing report on the works of the German NWP Group.

#### Morning Session II

11:00~12:15

#### AUTOMATIC DATA PROCESSING

*Chairman:* Bert Bolin.

Harold A. Bedient: New equipment for meteorological data processing.

Yoshinobu Masuda, Akio Arakawa and Shigemi Fujiwara: On the automatic data processing and the objective analysis for surface and upper level maps.

Odd Haug: On the optional use of the suitable

observations in numerical analysis.

#### Afternoon Session

1:30~5:00

#### SHORT-RANGE FORECAST I

*Chairman:* Ragnar Fjørtoft.

Bo R. Döös: A short review of routine forecasting.

K. Gambo and Ryotoku Isono: One parameter baroclinic model for the forecast of 500-mb northern hemispheric surface.

Donald E. Martin: The relation between non-adiabatic heating and the errors of numerical forecasts.

Heinz Reiser: Baroclinic forecasts with the primitive equations.

Naosuke Saito: The results of numerical forecasting with the 4-level baroclinic model.

H. Økland: A Comparison between barotropic forecasts made by Eulerian and Lagrangian methods.

#### Second Day: Tuesday, November 8

#### Morning Session

9:00~12:00

#### SHORT-RANGE FORECAST II (Basic research).

*Chairman:* George W. Platzman.

Arnt Eliassen: A new atmospheric model for numerical prediction

Ragnar Fjørtoft: Integration of balanced equation.

Norman Phillips: Calculations for the hemisphere with the barotropic primitive equations.

Frederick G. Shuman: Numerical experiments.

with the primitive equations.

Akio Arakawa: Non-geostrophic effects in the baroclinic prognostic equations.

#### Afternoon Session

1:30~5:00

#### SHORT-RANGE FORECAST III

(Basic research)

*Chairman:* Arnt Eliassen.

Jule G. Charney: Integration of balance equation.

Geirmundur Árnason: Analysis of a one-layer stratified model: its applicability to weather prediction in low latitudes.

Manfred M. Holl: The selection of variables in the use of the primitive system.

Morton G. Wurtele: Lagrangian dynamics and the parcel method in atmospheric models.

Yoshiatsu Kawata: The influence of mountains on large scale flow pattern of the atmosphere.

Jerome Spar: Experiments with a vertically integrated, wet diabatic model.

M.I. Yudine: A comparison of different non-geostrophic models of numerical forecasting

#### Third Day: Wednesday, November 9

##### Morning Session

9:00~11:45

#### SHORT-RANGE FORECAST IV

(Numerical modeling research)

*Chairman:* Sigekata Syōno.

George W. Platzman: Numerical computation of wind tides on lake Erie.

Jule G. Charney and Yoshimitsu Ogura: A numerical model for thermal convection in the atmosphere.

Mariano A. Estoque: A numerical model of the sea breeze.

Tetsuya Fujita: Basic mesometeorological research and its potential values in a shortrange forecast.

Hsiao-Lan Kuo: Solution of the nonlinear equations of cellular convection.

#### Fourth Day: Thursday, November 10

##### Morning Session

9:00~12:00

#### TYPHOON AND HURRICANE I

*Chairman:* Jule G. Charney.

Louis Berkofsky: Prediction of hurricane formation.

Akira Kasahara: A numerical experiment on the development of tropical cyclone.

Sigekata Syōno: Model research of formation of tropical cyclone.

Michio Yanai: Quantitative analysis of vorticity and thermal field of a formative typhoon.

George W. Platzman: and Eiichi.

Terauchi: Spectral modeling of the vertical structure of the atmosphere with an application to the quasi-geostrophic prediction equations.

Eiichi Terauchi: Numerical prediction of the movement of hurricane Audrey 1957 with a two-parameter model.

##### Afternoon Session I

1:30~2:50

#### TYPHOON AND HURRICANE II

*Chairman:* Norman Phillips: Hiroshi Ito, Shigemi Fujiwara, Yoshinobu Masuda and Takashi Nitta

Forecast of typhoon by numerical prediction method in Japan.

Seikichi Nishimoto: On graphical forecasting method for the displacement of typhoon.

George K. Morikawa: On the prediction of hurricane tracks using a geostrophic point vortex

##### Afternoon Session II

3:10~5:00

#### MISCELLANEOUS PROBLEMS I

*Chairman:* Norman Phillips.

Yoshio Kurihara: Numerical analysis of friction and heat in the atmosphere

Shukuro Manabe and Fritz Möller: Some

results from a theoretical model of vertical heat transfer.

Edward N. Lorenz: The statistical prediction of solutions of dynamic equations.

Richard L. Pfeffer: Work of the new dynamic meteorology project at Columbia University.

**Fifth Day: Friday, November 11**

**Morning Session**

**9:00~12:00**

**GENERAL CIRCULATION I**

*Chairman:* Joseph Smagorinsky.

Yale Mintz: Some critical parameters which determine the form of the general circulation of the atmospheres of the earth and other planets.

Jerone Namias: Influences of abnormal surface heat sources on atmospheric behavior.

Seiichi Matsumoto: A numerical experiment using five-level geostrophic model.

Masahiko Aihara: Time-dependent behaviours of parallel flows in a non-divergent barotropic atmosphere. Numerical studies.

Shohachi Kubota: Energetical structure of the atmosphere over the northern hemisphere.

Abraham Huss: A numerical general circulation experiment.

**Afternoon Session 1**

**1:30~3:10**

**GENERAL CIRCULATION II**

*Chairman:* Yale Mintz.

Joseph Smagorinsky: A primitive equation model including condensation processes.

Aksel Wiin-Nielsen and John A. Brown, Jr.: On the distribution of heat sources and sinks in the lower troposphere and the corresponding generation of potential energy.

Ragnar Fjørtoft: On the external cause of

general circulation.

Kikuro Miyakoda: A trial of 500 hour barotropic forecast.

**Afternoon Session 2**

**8:40~5:25**

**MISCELLANEOUS PROBLEMS II**

*Chairman:* Yale Mintz.

Wayne D. Mount: On predictability at 500 mb as a function of density and type of information.

Hidetoshi Arakawa: Operational test of the probabilistic prediction of typhoon movements and their sea-level central pressures in the Far East.

Mituo Magata: Outline of the studies on the numerical predictions at Meteorological Research Institute in Tokyo.

Lloyd W. Vanderman: Hurricane and typhoon forecasting at JNWP Unit in 1960.

Y. Okamura: Numerical forecasting of divergence field.

E. Knighting: Numerical weather forecasting in the British Meteorological Office.

**Sixth Day: Saturday, November 12**

**9:00~11:30**

**OUTLOOK FOR THE FUTURE OF  
NUMERICAL WEATHER PREDICTION**

*Chairman:* Ragnar Fjørtoft.

Jule G. Charney, Arnt Eliassen, K. Gambo, Günther Hollmann, George W. Platzman, Frederick G. Shuman, Conferees.

**1:00 p.m.**

Excursion to Hakone

**Seventh Day: Sunday, November 13**

Excursion to Hakone