



PACIFIC REGION TECHNICAL NOTES

81-034
December 31, 1981

ANNUAL REVIEW (1981) OF THE PACIFIC REGION TECHNICAL NOTES

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INTRODUCTION

This note is presented as the last technical note of the year and as the 1981 annual review of the Pacific Region Technical Notes (PRTN). Not only is this a review of the notes by the editors, but also a review by the operational weather offices who are participants in these communicatory notes.

EDITOR'S GENERAL COMMENTS

During the past year 34 technical notes were published (see Appendix A). In terms of quantity this compares with 47 notes in 1980, 40 notes in 1979 and 51 notes in 1978. Our first year of publication was 1978.

The range of subjects covered by the 34 notes was not as large as in past years. However the majority of the notes again fell into the same three major categories as previous years. The categories are meteorological satellite interpretation, verification and case studies. These tend to reflect the priorities of the PWC for meteorological satellite development and self appraisal. Fourteen notes were related to satellite image interpretation, seven notes on case studies and five notes dealt with verification.

The forecast investigation series (examination of "bust" or exceptional forecasts) which were begun in 1979 were a great disappointment. No notes were published under this theme in 1981. Some of the case studies came close however they were not as probing and critical as a forecast investigation. The reason for the poor performance was twofold. Firstly, the shortage of staff at the PWC. In order to be effective with a forecast investigation it must be done very shortly after the event and not weeks later when staff becomes available. Secondly, the mechanism which was set up for identification and initiation of a forecast investigation was by request from a field office; in this regard no requests were received during 1981.

Of the 34 notes published, all were authored by the staff at the PWC. The careful nurturing of approximately half a dozen notes a year from our field offices has been insufficient during the past year.

The Pacific Region Technical Notes now have a large distribution. At its conception in 1978, the notes were distributed only within the AES Pacific Region. In 1981, the distribution extended outside AES and out to our colleagues in the U.S. National Weather Service Western Region. (See Appendix B) In fact two of the Pacific Region Notes were republished as NWS Western Region Technical Notes. These notes were PRTN 81-006 by Harvey Raynor entitled "The Nocturnal Low Level Jets over Prince George" and PRTN 81-016 by Bob MacKenzie entitled "Development of a Drying Index for Haying and other Harvesting Operations in B.C."

RESPONSE TO QUESTIONNAIRE

In 1978, a commitment was made to the Pacific Region Weather offices that the PRTN would be assessed annually. In order to review the PRTN, a questionnaire identical to that of 1978, 1979 and 1980 was sent to the 11 Pacific Region weather offices. Those offices able to respond by the time of this writing are:

Vancouver, Victoria, Kelowna, Penticton, Kamloops, Prince George, Castlegar, Fort St. John

A summary of the responses from the questionnaire are given in Appendix C.

EDITOR'S SUMMATION

As stipulated in the first technical note 78-001, the purpose of these notes is to provide a medium for timely dissemination of technical operational information pertinent to the members of the Pacific Region. It is this criteria which each annual review considers in order to determine whether the recommendation for continuance or termination be made to the office of the Regional Director.

Based on the editor's review and the results of the questionnaire, it will be recommended that the notes be continued through 1982.

The quality of the reproduced satellite images continue to be a problem. Better copies can be made at the printer, however this results in unacceptable delays and extra costs. In the coming year more use will be made of the PWC satellite analysis charts instead of the actual satellite images.

We have not given up on the "bust" forecast investigation series, we'll try again in 1982.

APPENDIX A

INDEX OF 1981 PACIFIC REGION TECHNICAL NOTES

- 81-001 JANUARY 6, 1981
VERIFICATION OF THE MORNING AMENDMENTS AND 10 AM UPDATES AT PWC
VELLO PUSS, METEOROLOGIST - PWC, VANCOUVER
- 81-002 JANUARY 8, 1981
CONFIRMED OBSERVATION OF WATERSPOUT OFF BONILLA ISLAND
PETER HAERING, CHIEF METEOROLOGIST - PWC, VANCOUVER
- 81-003 JANUARY 13, 1981
THE BOXING DAY FLOODS OF 1980 OVER SOUTHERN B.C.
RUSS YASUI & VELLO PUSS, METEOROLOGISTS - PWC, VANCOUVER
- 81-004 JANUARY 20, 1981
A CASE STUDY IN USE OF SATELLITE INFORMATION IN ASSESSING NUMERICAL
PROGNOSIS
LOUIS LEGAL, METEOROLOGIST - PWC, VANCOUVER
- 81-005 JANUARY 21, 1981
THE ZERO RELATIVE VORTICITY LINE
GARRY TOTH, METEOROLOGIST - PWC, VANCOUVER
- 81-006 JANUARY 29, 1981
THE NOCTURNAL LOW LEVEL JETS OVER PRINCE GEORGE
HARVEY RAYNOR, FIRE WEATHER METEOROLOGIST - PWC, VANCOUVER
- 81-007 MARCH 5, 1981
LONG TERM S1 SCORES AND THEIR INTERPRETATION
PETER HAERING, CHIEF METEOROLOGIST - PWC, VANCOUVER
- 81-008 MARCH 31, 1981
FXCN05 VERIFICATION FOR THE PACIFIC REGION (PART A)
GARRY TOTH, METEOROLOGIST - PWC, VANCOUVER
- 81-009 MARCH 31, 1981
FXCN05 VERIFICATION FOR THE PACIFIC REGION (PART B)
GARRY TOTH, METEOROLOGIST - PWC, VANCOUVER
- 81-010 APRIL 2, 1981
THE USE OF SATELLITE PHOTOGRAPHS IN DETERMINING THE BEST NUMERICAL
GUIDANCE IN A CRITICAL WEATHER SITUATION - THE HEAVY RAINFALL BOXING
DAY 1980
HAROLD BUSH, METEOROLOGIST - PWC, VANCOUVER
- 81-011 APRIL 6, 1981
STREX EVALUATION SUMMARY
LAWRENCE CHU, METEOROLOGIST - PWC, VANCOUVER
- 81-012 MAY 15, 1981
INTERPRETATION OF MARS CLOUD GROUP REPORTS IN AIRWAYS FORMAT
BRIAN HAMMOND, SUPERVISING METEOROLOGIST - PWC, VANCOUVER
- 81-013 MAY 20, 1981
UTILIZATION OF SATELLITE IMAGERY - DEFORMATION ZONE CONCEPT IN
REFINING MEDIUM RANGE CLOUD FORECASTS
LARRY FUNK, SATELLITE METEOROLOGIST - PWC, VANCOUVER
- 81-014 JUNE 8, 1981
DEVELOPING LOW PRESSURE AREAS OVER THE NORTHEASTERN PACIFIC -
HOW WELL ARE THEY FORECAST? A SEQUEL TO TECH NOTE 80-029
BRIAN HAMMOND, SUPERVISING METEOROLOGIST - PWC, VANCOUVER
- 81-015 JUNE 15, 1981
SNOWFALL FORECAST VERIFICATION 1980/81 OVER SOUTHWESTERN B.C.
VELLO PUSS, METEOROLOGIST - PWC, VANCOUVER

- 81-016 JUNE 22, 1981
DEVELOPMENT OF A DRYING INDEX FOR HAYING AND OTHER HARVESTING
OPERATIONS IN B.C.
BOB MACKENZIE, SENIOR METEOROLOGIST - PWC, VANCOUVER
- 81-017 JULY 20, 1981
A LOOK AT A MESOSCALE PRECIPITATION CASE: THE LAST GASP FROM TROPICAL
STORM BEATRIZ
VELLO PUSS, SENIOR METEOROLOGIST - PWC, VANCOUVER
- 81-018 AUGUST 26, 1981
THE PUPA PROGRAM
JOHN SPAGNOL, SATELLITE DEVELOPMENT METEOROLOGIST - PWC, VANCOUVER
- 81-019 SEPTEMBER 22, 1981
EXPERIMENTAL MOISTURE CHANNEL IMAGES AT THE PACIFIC WEATHER CENTRE
MERT HORITA, SENIOR DEVELOPMENT METEOROLOGIST - PWC, VANCOUVER
- 81-020 SEPTEMBER 27, 1981
SURFACE ANALYSIS FEATURES - TIME FOR CONSIDERATION
RON NUTTON, SENIOR METEOROLOGIST - PWC, VANCOUVER
- 81-021 OCTOBER 5, 1981
THE UPSLOPE EFFECT
JOHN SPAGNOL, SATELLITE DEVELOPMENT METEOROLOGIST - PWC, VANCOUVER
- 81-022 OCTOBER 26, 1981
OPERATIONAL ASSESSMENT OF NWP USING THE VORTICITY - CLOUD EDGE
DEFORMATION ZONE RELATIONSHIP
LARRY FUNK, SATELLITE METEOROLOGIST - PWC, VANCOUVER
- 81-023 NOVEMBER 3, 1981
THE PACIFIC WEATHER CENTRE SATELLITE PROGRAM, OCTOBER 1, 1981
JOHN SPAGNOL, SATELLITE DEVELOPMENT METEOROLOGIST - PWC, VANCOUVER
- 81-024 NOVEMBER 6, 1981
HEAVY RAINFALL OVER GREATER VANCOUVER, OCT. 30 - NOV. 1, 1981
MERT HORITA, SENIOR DEVELOPMENT METEOROLOGIST - PWC, VANCOUVER
- 81-025 NOVEMBER 8, 1981
A COMPARISON OF THE PERCENTAGE FREQUENCY OCCURRENCE OF GROUND BASED
INVERSIONS AT PRINCE GEORGE
TOM GIGLIOTTI, PROJECT METEOROLOGIST - PWC, VANCOUVER
- 81-026 NOVEMBER 25, 1981
SATELLITE IMAGERY AND THE USE OF THE J.J. GEORGE TECHNIQUE FOR
MARITIME CYCLONES OVER THE PACIFIC
LOUIS LEGAL, SATELLITE METEOROLOGIST - PWC, VANCOUVER
- 81-027 NOVEMBER 26, 1981
WINDSTORM OVER SOUTHWESTERN B.C. SATURDAY, NOVEMBER 14, 1981
PAT MORIN, SUPERVISING METEOROLOGIST - PWC, VANCOUVER
- 81-028 DECEMBER 1, 1981
PACIFIC WEATHER CENTRE GEOSTATIONARY METEOROLOGICAL SATELLITE DATA
RECEPTION AND ANALYSIS SYSTEM
MERT HORITA, SENIOR DEVELOPMENT METEOROLOGIST - PWC, VANCOUVER
- 81-029 DECEMBER 2, 1981
A SIGNIFICANT SNOWFALL OVER GREATER VANCOUVER (DEC. 2-8, 1980)
HAROLD BUSH, SUPERVISING METEOROLOGIST - PWC, VANCOUVER
- 81-030 DECEMBER 4, 1981
THE SATELLITE ANALYSIS PROGNOSIS
JOHN SPAGNOL, SATELLITE DEVELOPMENT METEOROLOGIST - PWC, VANCOUVER
- 81-031 DECEMBER 30, 1981
AN ALTERNATIVE FORECAST PROCEDURE
JOHN SPAGNOL, SATELLITE DEVELOPMENT METEOROLOGIST - PWC, VANCOUVER

- 81-032 DECEMBER 9, 1981
SUBJECTIVE EVALUATION OF 12 HOUR SATELLITE CLOUD PROGNOSIS
JOHN THOMAS, SATELLITE METEOROLOGIST - PWC, VANCOUVER
- 81-033 DECEMBER 10, 1981
FORECAST STUDIES IN THE PACIFIC REGION TECHNICAL NOTES
VELLO PUSS, SENIOR METEOROLOGIST - PWC, VANCOUVER
- 81-034 DECEMBER 31, 1981
ANNUAL REVIEW (1981) OF THE PACIFIC REGION TECHNICAL NOTES
MERT HORITA, SENIOR DEVELOPMENT METEOROLOGIST - PWC, VANCOUVER

APPENDIX B

PACIFIC REGION TECHNICAL NOTES

DISTRIBUTION

Pacific Region Weather Offices

Vancouver WO4, Victoria WO3, Castlegar WO4, Kamloops WO4, Kelowna WO4,
Penticton WO4, Port Hardy WO4, Prince George WO4, Terrace WO4,
Fort St. John, Fort Nelson

AES outside B.C.

WAED, CAES, OAED, QAED, MAED, AFFC, ACTD, AFPD, ARMD, ARMA, Gander WO,
RPN, CMC, Whitehorse WO

Dept. of National Defense

CFB Comox, Maritime Forces Pacific, NORAD, CFB Edmonton, CFB Trenton,
CFB Greenwood, Maritime Command, National Defence H.Q. Ottawa

Others

NWS Western Region - Salt Lake City; B.C. Ministry of Environment
Resource Analysis Branch; B.C. Climatology Unit Air Studies Branch;
Mr. J. Knox; Pacific Research Centre

APPENDIX C

SUMMARY OF RESPONSES TO QUESTIONNAIRE

(for comparison, 1978, 1979 & 1980 responses are also shown)

DISTRIBUTION OF REPLIES

	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>
1. Which of the following should be done?				
- Discontinue notes	0	0	0	0
- Make changes to make it worthwhile	0	0	0	0
- Leave as is	5	9	6	6
- Make changes to make it better	6	0	1	2
- No answer	1	0	0	0
2. How many of the notes are read?				
- All	8	7	5	5
- Most of them	3	2	2	3
- Some	1	0	0	0
- None	0	0	0	0
3. Are you saving the notes?				
- All	12	9	6	8
- Most of them	0	0	0	0
- Some	0	0	1	0
- None	0	0	0	0
4. Will members of your office be contributing articles in the coming 12 months?				
- Yes	4	3	2	1
- No	0	1	0	0
- Maybe	8	5	5	7
5. In general is the quality of xeroxed satellite pictures sufficient to understand the articles?				
- Yes	1	3	1	1
- Most of them	9	4	5	5
- Seldom	2	2	1	2
- No	0	0	0	0

Questions 6 and 7 were more subjective in nature. Replies are repeated below or condensed.

6. What change would you like to see in the notes?

- somewhat less technical
- more notes on bust forecasts, particularly if recommended by W04 office
- more contributions from W04's
- ...rebuttal, further comments etc., perhaps letter to the editor... published every few months...
- better satellite photos and occasionally, the copy of diagrams are not clear
- ...format could be better set up as a mixture of illustrations plus text to help get rid of flipping back and forth through several pages to find the figure...

7. Your general comments about the Technical Notes

- good, timely, well written
- a very useful exchange of information. Keep them coming.
- occasionally the notes are too technical and difficult to understand, but generally we feel they are good and informative
- they are valuable to field offices, keeping us filled in on developments and achievements of PWC and other AES areas, we find them interesting
- good
- various parameters of the formulae are not fully explained
- general comment...Technical Notes are good, however, some of the information is too technical...none of the staff...has had any training what-so-ever on satellite imagery. Another comment... most of the studies...are restricted to the south coast of B.C....