*

^^^^^^^^^^

/ ..... \

==========

+ +

The 1998

CANADIAN UFO SURVEY:

an analysis of UFO reports

in Canada

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Compiled by

Chris A. Rutkowski
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Contributors:
Paul Anderson, Circles Phenomenon Research - Canada
Ed Barker, MUFON Manitoba
Errol Bruce-Knapp, MUFON Ontario and UFO Updates
Graham Conway, UFO*BC
Michel Deschamps, MUFON Ontario, Sudbury
Geoff Dittman, UFOROM
Jennifer Jarvis, Orbwatch
Gord Kijek, AUFOSG
Sue Kovios, MUFON Ontario
Rhea Labrie, St. Paul UFO Hotline
Don Ledger, MUFON Nova Scotia
Gilles Milot, AQU
Bill Oliver, UFO*BC
David Pengilly, UFO*BC
Jacques Poulet, CHUCARA
Michael Strainic, MUFON Canada
Don Vanden Hoorn, MUFON BC

Editor
Chris Rutkowski, UFOROM
Special thanks go to Geoff Dittman for his work on the database
and Ms M. Mataghe for her assistance in checking source materials.

Published by
Ufology Research of Manitoba
42 La Porte Drive
Winnipeg, Manitoba
Canada R3V 1V4

The 1998 Canadian UFO Survey

Overview

Since 1989, UFOROM has solicited UFO case data from all known and active investigators and researchers in Canada for analyses and comparison with other compilations. Individual researchers normally maintain their own files with little or no communication with others. In fact, representatives of major UFO organizations often do not regularly submit case data, and the parent organizations themselves tend not to do much analyses with the data they *do* receive, although this is slowly changing.

Although the collection and organization of the data is not yet standardized, some researchers are now collecting and storing UFO data in a consistent manner.

The Collection of Canadian UFO Data

Many individuals, associations, clubs and groups claim to investigate UFO reports or otherwise solicit reports from the general public. However, very few of them actually participate in any kind of information sharing or data gathering for scientific programs. Many are only interest groups, perhaps based in museums, planetariums, church basements or members= homes, and do virtually *nothing* with the case reports they receive. Indeed, because there is no way to enforce standards in UFO report investigations, the quality of case investigations varies considerably.

Further complicating this problem was the cessation of the collection of UFO reports by the National Research Council of Canada (NRC). The NRC routinely received UFO reports from private citizens and from RCMP, civic police and military personnel. Included among the NRC reports were many observations of meteors and fireballs, and these had been added into the UFO report database since 1989. However, in 1995, due to budget restraint and the lack of continuing research in meteoritics at the NRC as a result of retirements, deaths and other staff changes, the NRC announced it would no longer be accepting UFO reports as a matter of course. In addition, RCMP reports of UFOs and fireballs to the NRC summarily ceased.

This has resulted in an increase in Access to Information (AI) requests filed by ufologists with various government and military agencies in Canada. These have yielded some UFO cases, but the process is very time-consuming, costly and may not uncover all the cases needed for study.

As a consequence of these factors, what has been adopted for this present study is a requirement for an Aofficial@ status regarding UFO reports. If UFO sightings are reported to groups or individuals who do not share their case data with serious researchers, those

sightings are effectively *lost* to scientific analyses. The reports may accumulate in impressive numbers claimed by some organizations, but without the data being available for study, they are of no value whatsoever.

Therefore, for the purposes of this and other scientific studies of UFO data, only those UFO sightings which have been made to contributing and participating groups, associations, organizations or individuals can be given any kind of official status. Cases reported to any other group, association, club or individual cannot be considered *officially* reported.

These factors made collection of Canadian UFO data rather challenging. Certainly, because of the changes in the way in which reports have been received, the results of the 1997 survey cannot be compared easily with earlier annual analyses. However, it will be shown that the data obtained for the present analysis yields similar results to previous studies and is still useful in understanding the nature of UFO reports in Canada, and can shed light on the nature of UFO reports elsewhere in the world.

UFO Reports in Canada

For this study, the working definition of a UFO is *an object seen in the sky which its observer cannot identify.*

The following table shows the numbers of reported UFOs per year since 1989.

Year	Number of cases	Cumulative total
1989	141	141
1990	194	335
1991	165	500
1992	223	723
1993	489	1212
1994	189	1401
1995	183	1584

1996	258	1842
1997	284	2126
1998	194	2320

Report numbers have risen and decreased from year to year, but, had been increasing up until 1998. However, we must recognize that the yearly figures are greatly dependent on many factors, especially the cooperation of contributors to the survey. The all-time high count in 1993 was almost entirely due to a single major fireball event which was reported by hundreds of independent observers across the country.

There are several reasons for including IFOs such as fireballs and bolides in the UFO report database. First, previous studies of UFO data have included meteor and fireball reports. In many instances, observers fail to recognize stars, aircraft and bolides, and therefore report them as UFOs. That is why some UFO investigators often spend many hours sorting IFOs from UFOs. Historically, analyses of UFO data such as American projects Grudge, Sign and Blue Book all included raw UFO data which later resolved into categories of UFOs and IFOs. Another reason is that observed objects are sometimes quickly assigned a particular IFO explanation even though later investigation suggests such an explanation was unwarranted.

The issue of including IFOs in studies on UFO data is an important one. One could argue that once a sighting is explained, it has no reason to be considered as a UFO report. However, this overlooks the fact that the IFO was originally reported as a UFO and is indeed valid data. It may not be evidence of extraterrestrial visitation, but as UFO data, it is quite valid. It must be remembered that all major previous studies of UFOs examined UFO reports with the intent to explain a certain percentage of cases. These cases were the IFOs - definitely part of the UFO report legacy.

IFOs, however, are problematic in that they are not interesting to most ufologists. In fact, many UFO investigators do not record any details about UFOs reported to them which seem easily explained as ordinary objects. This may be a serious error. The UFO witness is conscientiously reporting an object which is mysterious to him or her - the exact definition of a UFO. Therefore, even the late-night anonymous telephone calls which are obviously reports of airplanes or planets should be logged as UFO reports.

With the exception of 1993, the number of Canadian UFO reports appears to remain constant at an average of about 190 cases per year, if we discard the 1993 figure as an

aberration. If we include the 1993 data, the Canadian average is 232 cases per year. Therefore, the number of UFO cases reported in 1998, although 16 per cent less than 1997, considerably fewer in number than 1997, is still about the Canadian average.

[Note: Additional reports not included in this survey were obtained from nightly skywatch groups, nearly all of which were Nocturnal Lights seen on or above the lake. These cases were not investigated but received as information and may form a new class of UFO which might be better studied as a whole because of the inherent skewing of data in this survey by their inclusion. It is hoped this problem will be addressed in later analyses.]

Since most UFO reports can be explained and reclassified as IFOs, we can observe that this attests to the reality of the objects seen. UFO reports actually reflect *real* events which occur. When a UFO is reported, a real object has been seen and was not just a fantasy of a witness= imagination.

Close Encounters of the Fourth Kind

Each year, a few Close Encounters of the Fourth Kind (CE4) are included in the UFO data. CE4s are the sensational Aalien abduction@ cases which currently receive wide attention in the media. Some researchers have speculated that thousands of such abductions occur each year, based on various surveys and the number of witnesses (Aabductees@) coming forward. Since abductions are often reported long after the fact, exact times and dates are meaningless as UFO data. Similarly, since witnesses= memories often are clouded or obscured, other data such as colour, duration and even location may be impossible to ascertain.

Some skeptics suggest that abductions may be a psychological rather than a Areal@ phenomenon. For these reasons, CE4s do not seem appropriate for inclusion in UFO databases. And, if they really are true close encounters, their complexity decrees that their inclusion in a raw data listing might be inappropriate as well. The few that were included were accepted only because they were reported to an official reporting body. It is likely that annual surveys eventually will not include CE4s as data.

Method

Data for each case was received by UFOROM from participating researchers across Canada. The information then was coded by members of UFOROM and entered into a Microsoft Excel database and statistically analysed.

An example of the coding key is as follows:

Example: 998 01 09 1530 Vernon BC DD 900 silver 2 ps 6 5 UFOBC p four obj. seen

Field: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Field 1 is a default YEAR for the report.

Field 2 is the MONTH of the incident.

Field 3 is the DATE of the sighting.

Field 4 is the local TIME, on the 24-hour clock.

Field 5 is the geographical LOCATION of the incident.

Field 6 is the PROVINCE where the sighting occurred.

Field 7 is the TYPE of report, using the Modified Hynek Classification System.

Field 8 is the DURATION of the sighting, in seconds (e.g. 600 is thus 10 min.).

Field 9 is the primary COLOUR of the object(s) seen

Field 10 is the number of WITNESSES

Field 11 is the SHAPE of the object(s) seen

Field 12 is the STRANGENESS of the report.

Field 13 is the RELIABILITY of the report.

Field 14 is the SOURCE of the report.

Field 15 is the EVALUATION of the case.

Field 16 includes any COMMENTS noted about the case.

Analyses of the Data

Distribution of UFO Reports Across Canada

In previous analyses, British Columbia garnered between 30% and 40% of the total number of cases per year. In 1997, the percentage was 35% but was down to 30% in 1998. Ontario and Quebec together constitute more than 60% of Canada=s population, but had only 38% of the total number of UFO reports in 1998, and this does not vary much from year to year.

If we consider that UFOs are a function of population, then the percentages of UFO reports per province are definitely not proportional. There is usually an over-representation of cases from British Columbia and under-representation from Ontario and Quebec.

For the third year in a row, there was a larger than normal number of UFO sightings reported in the Northern Canada. More than 13% of all Canadian UFO reports came from the Yukon

and the Northwest Territories in 1998, much more than might be expected if sightings were somehow tied to population. Alberta, on the other hand, continues to receive a paucity of reports.

Some of these distribution effects are certainly due to the active solicitation of UFO reports from the public by regional investigators and groups. However, one can wonder if this is the case for Northern Canada.

TABLE 1

Distribution of UFO Reports by Province

	BC	AB	SK	MB	ON	PQ	NB	PEI	NS	NF	YK	NWT
1989	15	16	18	22	34	28	1	-	3	3	-	1
1990	76	9	10	20	21	36	7	3	5	4	1	2
1991	59	22	7	6	30	16	9	1	7	4	1	-
1992	90	8	9	23	56	10	9	-	3	4	3	1
1993	157	56	93	74	51	32	3	1	3	7	-	5
1994	14	39	8	10	51	34	6	-	9	6	3	3
1995	45	10	11	48	41	20	-	-	1	1	-	4
1996	43	10	11	39	63	45	1	-	9	1	-	35
1997	99	11	5	32	72	24	1	1	6	3	8	22
1998	58	6	14	15	59	15	1	1	-	-	22	2

Monthly Trends in UFO Reports

The monthly breakdowns of reports during each year show slightly different patterns from those of previous years. 1990 saw two major increases in report numbers in two months: April and August. The "normal" level of monthly report numbers appeared to be constant in other months, with minor fluctuations.

The 1992 breakdown again showed no clear peaks in monthly report numbers. This is most curious, because UFO reports often are said to peak in summer and trough in winter, presumably due to the more pleasant observing conditions during the summer months, when more witnesses are outside. In 1993, the opposite of what is usually imagined was true: there were peaks in winter, and troughs in summer. For 1997, peaks appeared in March-April, July-August and November-December. There was no obvious seasonal peak or trough. The March flap appeared due to a concentration of activity in Quebec while the December peak seemed due to sightings in the Northwest Territories.

1998, however, was highly anomalous in terms of monthly distribution of UFO reports. Nearly all cases were confined to the late summer and early fall, with a single peak in September. This skewed distribution is not explainable at this time.

TABLE 2

Monthly Report Numbers

	J	F	M	A	M	J	J	A	S	O	N	D
1989	13	9	6	9	5	9	5	5	12	32	27	9
1990	17	7	6	47	10	10	9	47	15	16	10	-
1991	13	7	17	12	7	12	16	25	16	12	11	17
1992	15	16	27	16	22	16	23	19	11	16	21	21
1993	59	15	20	22	14	38	27	49	41	152	24	21
1994	16	12	15	21	15	37	19	8	15	10	7	13
1995	14	12	13	9	9	10	28	33	28	11	11	5

1996	37	18	20	16	8	20	30	32	10	22	30	11
1997	19	11	31	29	17	13	29	29	22	16	26	37
1998	3	4	8	5	9	13	16	40	45	35	7	4

UFO Report Types

An analysis by report type shows a similar breakdown to that found in previous years. The percentage of cases of a particular type remains roughly constant from year to year, with minor variations. Nocturnal Lights (NLs), for example, comprised 60% of all reports in 1989, had a high of 76% in 1993 and a low of 51% in 1997. In 1998, NLs were again 60% of the total.

The percentage of DDs has also varied over the years. In 1991, there were only 7.9%, but in 1997 there were 18.4%. There were 13% in 1998.

NL and ND cases together comprised about 72% of all 1998 UFO reports, so that almost three-quarters of cases occur at night.

Only 3.65% of all cases were close encounters in 1998, compared with 6.71% in 1997.

TABLE 3

Report Types (Modified Hynek Classifications)

	NL	ND	DD	C1	C2	C3	C4	EV	RD	PH
1989	84	20	16	10	7	-	2	2	-	-
1990	141	24	15	2	1	-	4	3	-	-
1991	110	26	13	7	4	1	2	-	1	1
1992	136	44	20	15	5	2	3	-	-	1
1993	372	77	26	8	2	1	1	1	-	-

1994-95	234	78	28	21	1	1	5	1	-	-
1996	170	40	27	8	3	4	1	2	-	-
1997	145	62	52	4	2	5	8	4	-	1
1998	115	23	25	6	1	-	-	19*	-	3

* - In 1998, there was an unexpected resurgence of crop circle cases in Canada, and these were added as data, although not UFO sightings as such.

For those unfamiliar with the classifications, a summary follows:

NL (Nocturnal Light) - light source in night sky

ND (Nocturnal Disc) - light source in night sky that appears to have a definite shape

DD (Daylight Disc) - unknown object observed during daytime hours

C1 (Close Encounter of the First Kind) - ND or DD occurring within 200 metres of a witness

C2 (Close Encounter of the Second Kind) - C1 where physical effects left or noted

C3 (Close Encounter of the Third Kind) - C1 where figures/entities are encountered

C4 (Close Encounter of the Fourth Kind) - an alleged "abduction" or "contact" experience

EV (Evidence) - a case where physical traces left by an event are the primary claim

RD (Radar) - UFOs observed on radar

PH (Photograph) - photographs of a UFO, but no actual sighting

The category of **Nocturnal Disc** was created by UFOROM for differentiation within its own report files. Similarly, **Evidence** is also an *ad hoc* creation, and may not be applicable by other researchers. **Evidence** includes such physical traces as "crop circles", "landing rings" and "saucer nests."

Hourly Distribution

The hourly distribution of cases has usually followed a similar pattern each year, with a peak at 2200 hours local and a trough around 1000 hours local. Most sightings occur between 9:00 p.m. and midnight. Since most UFOs are nocturnal lights, this is not unexpected. The number of possible observers drops off sharply near midnight, and we

would expect that the hourly rate of UFO reports would vary with two factors: potential observers and darkness.

In 1997, this smooth, bell-shaped curve was strongly evident. There was a general trough centred around 11 a.m. and a peak at 10:00 p.m. The trend in 1998 had similar troughs and peaks, although there was a bizarre secondary peak at 7:00 a.m. This is highly unusual, and cannot be explained at this time.

Duration

The category of **Duration** is interesting in that it represents the *subjective* length of time the UFO experience lasted. Naturally, these times are greatly suspect because it is known that people tend to misjudge the flow of time. However, some people *can* be good at estimating time, so this value has some meaning. Although an estimate of "one hour" may be in error by several minutes, it is unlikely that the correct value would be, for example, one *minute* (disregarding the claims of "missing time" during the abduction category of experiences). Furthermore, there have been cases when a UFO was observed and clocked accurately, so that we can be reasonably certain that UFO events can last considerable periods of time.

The average duration of a sighting can be calculated as the summation of all given durations divided by the number of cases with a stated duration. In 1994-95, the value was approximately seven minutes. But in 1996, the average length of time witnesses observed a UFO was remarkably more than 25 minutes (1,536 seconds)! This is very long time for a witness to be observing an unusual object in the sky. For 1998, the average duration of all cases was about 15 minutes and 39% of all sightings were briefer than 30 seconds.

Previous analyses have shown that long-duration sightings tend to occur in the early morning hours, from about midnight until 6:00 a.m. It is probable that the majority of observations at this time are those of astronomical objects, moving slowly with the rotation of the Earth.

Extremely short duration events are usually fireballs or bolides, while very long duration events of an hour or more are very probably astronomical objects. In between, there can be no way to distinguish conventional objects from UFOs solely with **Duration** data. A Canadian study by an Ontario UFO group which timed aircraft observations found that the duration of such sightings varied between 15 seconds to more than 8 minutes. There does not seem to be a clear relationship between the number of reports and the **Duration** of UFO sightings.

Colour

In cases where a colour of an object was reported, the most common colour is white (27% in 1996 and 37% in 1997, but more than 43% in 1998). The next most common colour in 1998 was red (12%), followed by orange (10%) and then silver (9%). In 1997, the second-most-common was multicoloured (10%), followed by orange (9%). This variation is curious, but not mystifying. Since most UFOs are nocturnal starlike objects, the abundance of white objects is not surprising. Other colours such as red, blue and green often are associated with bolides (fireballs).

The >multicoloured= designation is problematic in that it literally covers a wide range of possibilities. Some studies of UFO data have adjusted the category of colour to include both Aprimary@ and Asecondary@ colours in cases where the observed UFO had more than one colour. The multicoloured label has been used, for example, when witnesses described their UFOs as having white, red and green lights. For the present study, the **Colour** classification refers only to the primary colour in the witness= description.

Witnesses

The mean number of witnesses per case between 1989 and 1998 is approximately 2.00. This value has fluctuated between a high of 2.4 in 1996 to as low as 1.4 in 1990. In 1998, the average number of witnesses per case was 1.59.

This indicates that a typical UFO experience has **more than one witness**, and supports the contention that UFO sightings represent observations of physical phenomena since there is usually a corroborator present to support the sighting.

In 1998, 112 cases (68%) had only one witness. All the others had more than one.

Shape

Although witnesses= descriptions of the shapes of UFOs varied greatly, in 1998, the overwhelming majority of cases (49%) were of >point sources= - that is, starlike objects. The next most common shape was a triangular, boomerang or >delta-shaped= object (19%) followed by round/disc (17%).

A point-source light continues to be the most common description of a UFO. Likewise, disc/saucer, cigar and diamond-shaped objects continue to be reported at relatively the same rate as previous years.

Strangeness

The assigning of a **Strangeness** rating to a UFO report is based on a classification adopted by researchers who note that the inclusion of a subjective evaluation of the degree to which a particular case is in itself unusual might yield some insight into the data. For example, the

observation of a single, stationary, starlike light in the sky, seen for several hours, is not particularly unusual and might likely have a prosaic explanation such as that of a star or planet. On the other hand, a detailed observation of a saucer-shaped object which glides slowly away from a witness after an encounter with grey-skinned aliens would be considered highly strange.

The numbers of UFO reports according to strangeness rating show an inverse relationship such that the higher the strangeness rating, the fewer reports. The one exception to this relationship occurs in the case of *very* low strangeness cases, which are relatively few in number compared to those of moderate strangeness. It is suggested this is the case because in order for an observation to be considered a UFO, it must usually rise above an *ad hoc* level of strangeness, otherwise it would not be considered strange at all.

The average strangeness rating for UFO reports during 1998 was 3, where 1 is considered not strange at all and 9 is considered exceptionally unusual. The average rating in 1997 was 4. This would seem to suggest that most UFOs reported are of objects which do not greatly stretch the imagination. Hollywood-inspired flying saucers are, in reality, relatively uncommon in UFO reports.

Reliability

The average **Reliability** rating of reports in 1996 and 1997 was slightly greater than 5, indicating that there were about the same number of higher quality cases as those of low quality. Low reliability was assigned to reports with minimal information on the witness, little or no investigation and incomplete description of the object(s) observed. Higher reliability cases might include actual interviews with witnesses, a detailed case investigation, multiple witnesses and other supporting evidence. In 1998, the Reliability rating dropped by a point, to 4.

The **Reliability** and **Strangeness** ratings varied together in classic bell-shaped curves. In other words, there very few cases which were both highly unusual and well-reported. Most cases were of medium strangeness and medium reliability. However, there were also very few low-strangeness cases with low reliability. Low-strangeness cases, therefore, tended to be well-reported and probably had explanations.

Conclusions/Evaluations

The breakdown by **Evaluation** for 1998 cases was similar to results from previous years. There were four operative categories: **Explained, Insufficient Information**, **Possible or Probable Explanation**, and **Unknown (or Unexplained)**. Readers are cautioned that a classification of **Unknown** does *not* imply that an alien spacecraft or mysterious natural

phenomenon was observed; no such interpretation can be made with certainty, based on the given data (though the probability of this scenario is admittedly never zero).

In most cases, evaluations are made subjectively by both the contributing investigators and the compiler of this report. The category of **Unknown** is adopted if the contributed data or case report contains enough information such that a conventional explanation cannot be satisfactorily proposed. This does *not* mean that the case will never be explained, but only that a viable explanation is not immediately obvious.

The average proportion of **Unknowns** since 1989 has been about 13%, and 1998 did not vary much, with a value of 11.3%. This is a relatively high figure, considering that this would imply that more than one in ten UFOs cannot be explained. However, there are several factors which affect this value. The level and quality of UFO report investigation varies because there are no explicit standards for ufologists. Some "believers" might be biased to consider most UFO sightings as mysterious, whereas those with more of a skeptical predisposition might tend to subconsciously (or consciously) reduce the **Unknowns** in their files.

During the first few years of these studies, an evaluation of **Explained** was almost nonexistent. Contributors at first tended to ignore UFO sightings that had a simple explanation and deleted them as actual *UFO* data. However, because many IFO cases such as fireballs and meteors are initially reported as UFOs, the **Explained** category is necessary for a full review of UFO data. Early American studies of UFO data included such cases, so present-day comparative studies should include such data as well. Furthermore, since there are no absolutes, the subjective nature of assigning **Evaluations** is actually an interpretation of the facts by individual researchers.

TABLE 4

Evaluation of Canadian UFO Data

	Explained		Insuf. Info.		Poss. Explan.		Unexplained	
	#	%	#	%	#	%	#	%
1989	0	0	74	52.5	47	33.3	20	14.2
1990	0	0	90	46.4	78	40.2	26	13.4

1991	2	1.2	80	48.5	69	41.8	14	8.5
1992	17	8	83	37	74	33	49	22
1993	154	31.5	170	34.8	115	23.5	50	10.2
1994-95	71	19.1	124	33.3	131	35.2	46	12.4
1996	24	9.3	105	40.7	87	33.7	42	16.3
1997	17	6.0	106	37.3	122	43	39	13.7
1998	10	5.1	75	38.7	87	44.8	22	11.3
Total	295	15.4	907	47.2	410	21.3	308	16.0

There were 22 **Unknowns** out of 194 cases in 1998. If we look only at the **Unknowns** with a quality or **Reliability** rating of six or greater, we then are left with 16 higher-quality **Unknowns** in 1998 (8.2% of the total). Of these, 13 had a **Strangeness** rating of six or greater (6.7% of the total). This represents an increase in the number of higher-quality **Unknowns** in 1997 (2.1%). The reason for this increase is not immediately obvious. (As a comparison, USAF Blue Book studies found only three to four percent of their cases were "excellent" **Unknowns**.)

It should be emphasized again that even high-quality **Unknowns** do not imply alien visitation. Each case may still have an explanation following further investigation. And of those that remain unexplained, they may remain unexplained, but still are not incontrovertible proof of extraterrestrial intervention or some mysterious natural phenomenon.

Summary of Results

The *1998 Canadian UFO Survey* does not offer any positive proof that UFOs are either alien spacecraft or a specific natural phenomenon. However, it does show that some phenomenon which often is called a UFO is continually being observed by witnesses.

The typical UFO sighting is that of two people together observing a moving, distant white or red light for several minutes. In most cases, the UFO is likely to be eventually identified as a conventional object such as an aircraft or astronomical object. However, in a small percentage of cases, some UFOs do not appear to have an easy explanation and they may be given the label of "unknown."

What are these "unknowns?" From a completely scientific standpoint, we have no way of extrapolating a definitive explanation based on this data. Biases for or against the view that UFOs are extraterrestrial spacecraft often hinder the scientific process and cloud the issue. A "debunker" who has a strong belief that UFO reports are all fabrications or misinterpretations may tend to dismiss a truly unusual case out of hand, whereas a "believer" who believes aliens are indeed visiting Earth may read something sinister into a case with a conventional explanation.

All that a study of this kind can do is present the data and some rudimentary analyses. The recognition that there really are only a handful of true unknowns among the UFO cases might lead a debunker to believe they, too, might find an explanation if enough effort were to be expended, but to a believer this might be the required proof that some UFOs have no explanations.

The **Evaluation** value is a subjective value imposed by the investigator or compiler (or both) with a scale such that the low values represent cases with little information content and observers of limited observing abilities and the higher values represent those cases with excellent witnesses (pilots, police, etc.) and also are well-investigated. Naturally, cases with higher values are preferred.

The interpretation of the 22 Unknowns is that these cases were among the most challenging of all the reports received in 1998. It should be noted that most UFO cases go unreported, and that there may be ten times as many UFO sightings that go unreported as those which get reported to public, private or military agencies. Furthermore, it should be noted that some cases with lower reliability ratings suffer only from incomplete investigations, and that they may well be more mysterious than those on the list of Unknowns. And, above all, these cases are *not* proof of extraterrestrial visitation.

Other comments

UFOs were reported at a rate of about 16 per month across all of Canada in 1998, down from 24 per month in 1997. Throughout the past ten years, the rate has been approximately 19 per month. Up until 1998, the number of UFO reports had been increasing; there were about 10% more UFOs reported in 1997 than 1996 and 1996 over 1995, but there were 16% fewer in 1998 than 1997.

UFO witnesses range from farmhands to airline pilots and from teachers to police officers. Witnesses represent all age groups and racial origin. What is being observed? In most cases, only ordinary objects. However, this begs a question. If people are reporting things that can be explained, then the objects they observed were "really" there. Were the objects we can't identify "really" there as well? If so, what were they?

These are questions that only continued and rational research can answer, and only if researchers have the support and encouragement of both scientists and the public.

1998 Canadian UFO Survey: Summary of Results

- The number of UFO reports made in Canada appear to hover around an average of about 203 cases per year. There were 16% fewer UFO reports made in 1998 than 1997.
- The distribution of UFO reports in Canada was somewhat related to the distribution of population. However, UFO reports come from all regions of Canada: from coast to coast and from the prairies to the high Arctic.
- During the past ten years, there was no definite monthly trend found in Canadian UFO reports, although there are some regional monthly fluctuations. UFOs are as likely to be reported in summer as in winter. However, 1998 had an anomalous percentage of cases in the fall.
- Approximately 80% of UFO sightings were merely of lights in the night sky.
- In 1998, about 22% of all UFO reports were unexplained. This percentage of unknowns falls to about 6.7% when only higher-quality cases are considered.
- Most UFO sightings occurred between 9:00 pm and midnight.
- UFO incidents usually have more than one witness, and most have two witnesses.
- In 1998, the typical UFO sighting lasted about 15 minutes, down from last year=s average of 20 minutes.
- Most reported UFOs were white in colour.

The most important findings of this study include the fact that UFO sightings have continued to be reported at a more-or-less constant level over the past several years. People still report observing unusual objects in the sky, and some of these objects do not have obvious explanations. Many witnesses are pilots, police and other individuals with reasonably good observing capabilities and good judgement. Although most reported UFOs

are simply lights in the night sky, a significant number are objects with definite shapes observed within the witnesses= frame of reference.

Popular opinion to the contrary, there is yet to be any incontrovertible evidence that some UFO cases involve extraterrestrial contact. However, the continued reporting of UFOs by the public suggests a need for further examination of the phenomenon by social, medical and/or physical scientists.

For further information, contact:

Ufology Research of Manitoba E-mail: rutkows@cc.umanitoba.ca

Canadian UFO Survey Web Page http://www.geocities.com/Area51/Rampart/2653

Contributing Organizations

Orbwatch

e-mail: jarvis@globalserve.net

MUFON BC

e-mail: dkvanden@futurenet.bc.ca

MUFON Nova Scotia

e-mail: dledger@istar.ca

MUFON Ontario

e-mail: updates@globalserve.net

werd@interlog.com

tom@cnl.com

739411@ican.net (Michel Deschamps)

bradford@globalserve.net (Sue Kovios)

bud.sherlock@oln.com (Bud Sherlock)

http://www.globalserve.net/~updates/mufon

UFO*BC

e-mail: contactus@ufobc.org

http://www.ufobc.org

Ufology Research of Manitoba

e-mail: rutkows@cc.umanitoba.ca

http://www.geocities.com/Athens/Delphi/7998

Blaine Wasykiw

http://www.ssimicro.com/~ufoinfo

CHUCARA

Box 61

La Prairie, Quebec J5R 3Y1

http://members.tripod.com/jpoulet/

jpoulet@chucara.com

MUFON Canada

http://www.renaissoft.com/ufocanada

MUFON Manitoba

ebarker2@escape.ca

Circles Phenomenon Research - Canada

psa@direct.ca

http://www.geocities.com/Area51/Cavern/3310

Canadian "Unknowns" in 1998

February 28, 1998 midnight Hope-Princeton Highway, BC

A truck driver observed an enormous, silent, black triangular object moving slowly over the highway.

April 6, 1998 7:30 p.m. Whitehorse, YK

A mother and daughter observed an object darting up and down vertically.

April 18, 1998 7:00 p.m. Kamloops, BC DD

Witnesses observed a silver disc hovering nearby. A second object appeared and circled the first. Both objects then >shot off straight up.=

April, 1998 3:30 a.m. Whitehorse, YK

A witness observed a blue light hover and then >zoom up and over a mountain.=

May 5, 1998 10:05 p.m. Kelowna, BC

Three people observed a dark triangular silhouette that floated silently nearby.

May 29, 1998 10:30 p.m. Bancroft, ON

When a V-shaped object flew over a house, car lights and an outside spotlight turned on by themselves.

June 1, 1998 9:45 p.m. Sorel, PQ

After hearing a loud noise, a witness observed a triangular object hovering nearby. After several minutes, it departed, travelling at a tremendous speed.

June 5, 1998 11:49 p.m. Sudbury, ON

Two people observed two objects: a large bright object with a smaller orange light trailing it. As the witnesses watched, the small light merged with the main light. There was no sound.

June 9, 1998 4:08 p.m. Surrey, BC

While driving, a witness saw two flashes of light and then a silver, disc-shaped object, 1000 feet away, giving off a Asunny glow.@ The object was estimated to be 20 feet in diameter.

June 20, 1998 11:30 Blainville, PQ

A copper-coloured cigar-shaped object with >portholes= flew over a group of campers.

July 2, 1998 9:45 a.m. Emerald Lake, YK

A witness observed a metallic, >softball-sized= object fly over him.

July 14, 1998 4:00 a.m. Selkirk, MB

A witness observed a blue, triangular object slowly descend across a street then go straight back up. No sound was heard.

July 26, 1998 11:30 p.m. Terrace, BC

One object hovered and then moved erratically across the sky. Another object was seen moving at a very high velocity.

July 27, 1998 2:30 a.m. Terrace, BC NL

Two objects were observed displaying erratic movement, high speed and hovering ability.

August 13, 1998 11:30 Surrey, BC

Many people called the RCMP to report a bright disc which >dropped out of the sky= and hovering in the area. No sound was heard. It disappeared at a high rate of speed.

August 29, 1998 1:30 a.m. Calgary, AB

A witness estimated a black triangular object to be >several times larger than an airplane.= It hovered, then crossed the sky within 2 seconds.

September 3, 1998 5:00 p.m. Kamloops, BC

A witness observed a black circular object shoot across sky, hover, then depart straight up vertically. No sound. Another object then did same thing."

September 9, 1998 10:30 p.m. Cloverdale, BC

Two people observed a large white light that split in two, travelled at high speeds, reformed again, and repeated its actions. >Fighter jets= were seen flying in the same area shortly afterward.

September 16, 1998 1:00 p.m. Serpent River, ON

Two people observed a silver oval object hovering overhead (below the clouds) for a few seconds. It then moved further away and hovered again, then left at a high rate of speed.

October 11, 1998 10:00 p.m. Yellowknife, NT

Two people observed a large silent object fly overhead. Smaller lights were seen as well.

October 19, 1998 10:20 p.m. Winnipeg, MB

A witness observed three square yellow objects fly low overhead. No sound was heard. Airport authorities said there were no flights over the city at the time.

October 24, 1998 2:30 a.m. Burns Lake, BC

A man observed a round, multicoloured light move in the sky, jumping around and finally departing vertically at great speed.