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CASCON II

COMPUTER-AIDED SYSTEM FOR HANDLING INFORMATION ON LOCAL CONFLICTS

USER'S MANUAL

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with

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The present manual completely supersedes
CASCON II: User's Manual (C/71-10) dated August 1971,
which should be destroyed.

This is the second revised edition of the user's manual in
CASCON: Computer-Aided System for Handling
Information on Local Conflicts
(Vol. II, Appendix B, pp. 111-158) ACDA/WEC-141, C/70-8.

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PART I

THE CASCON SYSTEM

1.1 Preface

What follows assumes a general background knowledge of the MIT CASCON project and the research on local conflicts out of which it grew. Those unfamiliar with its philosophy and purposes are referred to section 1.2.2 below.

CASCON II is an expanded and improved version of the first pilot CASCON system developed at MIT in 1969 under a contract to the US Arms Control and Disarmament Agency. (The report of this research can be found in Robert R. Beattie and Lincoln P. Bloomfield, CASCON: Computer-Aided System for Handling Information on Local Conflicts ACDA/WEC-141 and in an article by Bloomfield and Beattie entitled "Computers and Policy-Making: The CASCON Experiment" in the Journal of Conflict Resolution for Spring 1971).

CASCON II was developed at the MIT Center for International Studies in 1971-1972, in collaboration with the University of Michigan. Its data base now contains 52 post World War II cases of local conflict.

For the person who wants to use, or experiment with CASCON II on-line, all the necessary background, definitions, and instructions can be found in this Users Manual. Code books can be secured by writing the Publications Office, Center for International Studies, M.I.T.

General background in the Introduction (Section 1.2) like the rest of the textual material in this revised manual, is written here in the form in which the computer will print it out. (After becoming familiar with the system, the user can log into CASCON in a way that omits all the introductory material).

Definitions, key words, and commands used in CASCON are found in 1.3 and 1.4. In addition to being able to log into CASCON in a way that omits any such materials, the user can ask CASCON at any time for the lists of definitions or commands or for any specific definition.

In addition to an expanded data base of post-World War II cases, and considerably more flexibility and versatility in using the system, CASCON II also contains a summary precis of all 52 cases, organized by "Phases," that affords the user a quick historical refresher as to the facts. The user can also now enter data on a new case in minimum time.

Finally, CASCON is geared to the needs and interest of the user, with emphasis on the special requirements of a government or international organization official, but with ample scope for experimental or research use by scholar and student. The conflict-relevant values assigned to each of 482 factors for the 52 cases in the data base reflect coding of every factor for every case by the most authoritative experts available to us - former high government officials, international mediators and negotiators, and scholars, as well as presently serving government officials. Part 5 describes how we reconciled their differences in coding.

1.2 Introduction

The CASCON system requires little or no knowledge of computers. It operates in an interactive format which leads you through each series of commands. In addition, the system responds to errors by explaining what it expects in the given situation. Thus, it is almost impossible to go wrong, once a few basic operations are understood. CASCON II is presently on MIT's MULTICS System and arrangements must be made by each outside user with the MIT Information Processing Center. The program language is Pl-1.

When you sit down at the console and initiate CASCON II, the following sequence occurs. The user logs into MULTICS. Once on MULTICS, the user types *Cascon* and presses Carriage Return of his console or teletype (all user actions are shown in this manual in *italics*). CASCON then says:

Enter your user id

User then types his ID (which will be given him along with login procedures). User presses Carriage Return and computer proceeds to print out the introduction to CASCON, which looks like this:

CASCON

> Computer-Aided System to Handle Information on Local Conflicts, i.e., small Wars or potentially military clashes within or between all but the major powers. Developed by the Arms Control Project, Center for International Studies, Massachusetts Institute of Technology. Original version prepared under contract to the United States Arms Control and Disarmament Agency and technically designed and programmed by Cambridge Computer Associates. Revised and expanded by CIS, MIT during 1971-72 in collaboration with University of Michigan. Present version is CASCON II.

After this the computer asks:

> Would you like an introduction to Cascon II? Yes or no, please.

1.2.1 If user types *no* and presses Carriage Return, CASCON puts him in a position to give commands and use the system. First, however, it

makes sure he is familiar with the kinds of things CASCON does and the exact words required (computers are very precise and literal instruments!). It says:

> For the list of definitions type:
> list definitions
> For the list of commands type:
> list commands
> otherwise proceed with the commands you wish.

If the user then types

list definitions; (followed by Carriage Return)

CASCON prints the list (shown in section 1.3 of this manual).

If he types

list commands; (followed by Carriage Return)

CASCON prints the list (shown in section 1.4). Note that the user may also command CASCON to print out either list at <u>any</u> time during his session at the console. To refresh his memory as to the exact definition of a key word or command, he may also ask CASCON, anytime it says type command:

define

followed by the definition or command he wants defined, as in:

define measures;

1.2.2 If the user answered CASCON's initial query with:

yes

and pressed the Carriage Return, CASCON will then give him a more detailed background on the theory and practice of CASCON, as follows:

CASCON II

Uses of CASCON

1. While it is still experimental, CASCON II represents a further step toward a comprehensive system that could serve as a useful tool for the government or international organization official engaged in crisis--or preferably pre-crisis--diplomacy and decision-making, as well as for the scholar studying conflict and its prevention. When fully developed such a system could serve as an aid to his memory by storing for him data on an incipient conflict situation, and producing for him at will both that stored data, and stored data on past local conflicts (organized as explained below) that had in common with his new case violence-generating or violence-minimizing factors (see below). It can also serve as an aid to his imagination by comparing the factors in a new case with factors in previous conflicts, as well as by listing historically-relevant conflict-minimizing policy measures.

Conflict Models

2. The way the data are organized and stored is based on a dynamic structural model of local conflict developed by Bloomfield and Leiss at MIT. According to that model, all conflicts can go through a number of phases. Phase 1 starts when a dispute begins. Phase 2 is the beginning of a conflict, signalled by at least one side viewing the dispute in potentially military terms. If hostilities break out involving significant violence the conflict is in Phase 3 within which it can intensify (escalate) or not. If fighting ends but the conflict remains, it is in Phase 4. If only the dispute remains, it is Phase 5. Ideally, the case can go to settlement (S) at any time. CASCON II only lists data for Phases 1, 2, and 3. A future computerized system may contain all phases. (Actually Phase 4 is often very similar to Phase 2, except that in Phase 4 there has already been some fighting.)

Factors

3. Within each phase there are factors--that is, events, conditions, actions, and the like--which influence the direction of the conflict toward or away from violence-i.e., are conflict-promoting, or conflict-minimizing. Each factor is, by definition, considered to be influential on the course of the conflict, tending toward or away from violence. (The developers of CASCON II are fully aware that minimizing violence, while important, is not always the most valued goal. CASCON II does seek to aid the statesman or peacemaker who in a particular instance does wish to avert or minimize violence.)

Data Base

4. In the 52 cases of conflicts since World War II analyzed by the MIT researchers (including 13 by the Browne + Shaw International Studies Division of Bolt Beranek and Newman under an ACDA contract) we identified a total of 482 factors, distributed among the various phases of conflict.

Measures

5. For each factor, we then defined policy measures that would be appropriate (though not necessarily desirable) if one's only aim were violence-minimization. In general, measures are intended to reinforce a factor when in a particular case it is seen as conflict-minimizing, or to offset that factor when deemed conflict-intensifying. It can happen that a conflict-intensifying factor is reinforced if opposing it might incite greater violence and vice versa. In many instances the measures were in fact taken in a given case--unhappily in many instances they were not.

Categories of Factors and Cases

6. Based on the case-specific factors found in the original cases studies, the 482 generally-worded factors are classified in CASCON II as to category (military, economic, ethnic, etc.), as to whether in a particular past case a given factor was present, as to whether influential in promoting or averting violence, and, if so, how much (little, some, much). The latter judgements represent a composite of factor coding for each case by high former officials and experts who were officially involved in each case and by recognized scholarly authorities on a given conflict case. The CASCON data base contains 52 cases of which 30 are primarily interstate, 16 primarily internal, and 6 colonial. Hostilities occurred in 37. 13 are Latin American, 19 Middle East and North African, 7 African, 10 Asian, and 3 European.

A New Case

7. For a new case, which may be still in the dispute stage, i.e., Phase 1, the user must do some basic things. He will have to name it, say what phase it is in, identify two sides, and say which side is the 'status-quo' and which is the non-status quo'. (These labels are non-ideological and refer to the side initiating action to achieve its ends vis a vis the side in 'possession'.) He will also have to translate (with CASCON's help) the factors he knows about into the system's general factors, and assign a value to each factor according to whether he adjudges it as influential in moving the conflict either toward or away from violence. CASCON II is designed so that this translation of real-life facts, reports, etc. about an incipient (or acute) conflict situation can be made by the user right at the computer console, with the system asking him questions and telling him in what terms to give his answers. Of course, once he becomes familiar with the system he can bypass the initial explanations, lists, definitions, and so forth.

Summary

8. To sum up what CASCON II can do for the user--1) It will store in a standardized form any data he gives it on a developing local conflict, and retrieve data for him on command. 2) It will tell him what additional data are lacking in the current case, either by category or in terms of additional factors within a particular category. 3) It will retrieve for him information about any or all of the 52 cases now stored in the data base, either by case, or by category, or by factor, or by relative weighting accorded to particular factors in past conflicts. 4) It will print out the conflict-controlling policy measures the MIT researchers derived as appropriate to offset the factor if the latter was violence-promoting, or to enhance the factor if it was violence-minimizing. Naturally, some of these measures will not be appropriate to a present case, although some might be. 5) It will make some comparisons of the present case with past data on the basis of a statistical analysis (which at this stage is still experimental), as well as indicate which factors were also present in the earlier similar case.

User Needs

9. There are only two things the user should have that are not in the computerized system--1) Instructions on how to use CASCON II, and 2) a CASCON II Coding Form (if he does not have the latter he can still code his new case on-line after reading the User's Manual).

Reference

10. Details of the CASCON experiment can be read in "Computers and Policy Making" by L.P. Bloomfield and R. Beattie in Journal of Conflict Resolution spring 1971.

After printing this out, the system will then print:

Type command

which puts the user at command level where he can use CASCON's various capabilities.

1.3 Definitions

If the user types *list definitions;* , the system will print a list of the terms defined. If he wishes individual definitions he uses the *define* command (see section 2.8). For convenience they are all listed here.

dispute	A quarrel or disagreement over something substantive, or the existence of a divisive issue between two parties. Neither of these parties has yet considered, or at least has not yet demonstrated willingness to resort to military force. This is phase 1 of the Bloomfield-Leiss model. If a dispute (but not conflict) situation exists after hostilities, it is called post-hostilities dispute - phase 5 of the MIT model (not in CASCON II).
conflict	A dispute in which at least one of the parties has considered or demonstrated willingness to use military force to resolve the dispute but as yet has not actually done so. This is phase 2 of the MIT model. If a conflict situation exists after hostilities, it is called post-hostilities conflict - phase 4 of the MIT model (not in CASCON II).

hostilities	A conflict in which military force is actively being employed to resolve the dispute. This is phase 3 of the MIT model.
"military force"	Inflicting casualties and/or destroying property in a systematic way so as to achieve a political goal.
phase	An identifiable stage in the course of a local conflict. The first three phases in the MIT model are dispute, conflict, hostilities.
factors	Conditions, events, or actions within a phase which generate pressures that tend either toward or away from transition of the conflict across a threshold into the next phase. In phases 1 and 2, factors that tend to keep the local conflict in the current phase or tend toward settlement are factors that tend away from violence, i.e., violence-minimizing factors. In phases 1 and 2, factors that tend to push the local conflict to the next phase are factors tending toward violence, i.e., violence-promoting factors. In phase 3, factors that tend to increase the level of hostilities or tend to prolong them are violence-promoting factors. Factors that tend to lower the level of hostilities or terminate them are violence-minimizing factors.

transition	Movement across an inter-phase threshhold as the result of the factor-generated pressures during a phase.
threshold	A convenient point of demarcation in time to separate the phases.
measure	A policy or action which, if taken, might alter the course of a local conflict by reinforcing factors that are violence-minimizing and/or offsetting factors that are violence-promoting.
category	A subject grouping of factors within each phase. The 11 category names can be printed by the 'list factor categories' command (explained below).
"user case"	User-created cases (as opposed to cases in the CASCON II data base) are called user cases. This includes all new cases originally entered by the user and also after they are modified by him.
"data base"	The information stored within the CASCON II system concerning 52 previous cases.
descriptor	An item of descriptive information about a case. Descriptive information includes the name of the case, its dates, the names of the status-quo and non status-quo sides, and the dates of the phases. (This information is in CASCON II for the 52 cases, as developed by MIT historical re-

searchers. For user cases it is supplied by the user and can be amended by him.) It also includes a brief summary of the facts of each case.

effect — The kind of dynamic effect that a particular factor has with regard to changing the level of violence in a particular case. A factor may be coded as having no effect (i.e., no information, not present, or present but not having any influence with regard to the level of violence) or it may be coded as having one of two kinds of effects - toward increasing the level of violence, or away from increasing the level of violence.

influence — The degree to which a specified factor has an effect toward or away from increased violence. There are three degrees of influences -- little, some, and much.

side — One of the conflicting parties to a dispute or conflict, i.e., the "status quo" side or the "non-status quo" side, referring not to ideology but to who is seeking change.

"ally/supporter" — A nation or other group that is in some way committed to one of the sides. This may be a treaty commitment, an ideological commitment, or some other general commitment.

neighbor — A nation or other entity geographically adjacent to one of the sides.

"disputed area"	A geographical location, or locations, about which a dispute revolves or within which it takes place. While the meaning will vary from case to case, "disputed area" is interpreted as narrowly and specifically as possible in each case coded.
superpower	A state which possesses a preponderant share of the world's political, military, and economic resources, and which has the capability of bringing this power to bear on a world wide base (currently U.S.A. and U.S.S.R.).
"great power"	A state which possesses a major share of the world's political, military, and economic resources.
"buffer area"	A geographical area outside of the "disputed area" which separates the two sides from each other; separates at least one of the sides from the disputed area; or surrounds the disputed area.
"political group"	A collection of individuals or other elements that may act in a coherent fashion in pursuit of a political goal.
negotiation	A structured interaction through which parties at issue try, or appear to try, to formalize an accomodation of their common and conflicting interests.

"public opinion/world opinion"

The verbalized reactions and attitudes of individuals, organizations, and/or states, concerning a dispute or some element of it. Public opinion, in particular, may comprise either world opinion or opinion within a side or another individual nation or party.

1.4 Commands

If the user types

list commands;

followed by Carriage Return, the system will print the following:

Command	Function
compare	Compares user case (or any case in the data base) to some or all of the cases in the data base (see manual for details).
command	Prints brief descriptions of individual CASCON commands.
define	Prints a definition from the list of definitions.
display	Displays part or all of the information stored for a specified case. This can include 'descriptors' such as full name, dates, sides, phases with their dates, case name codes, and whether interstate, internal, or colonial, and historical summaries.
enter	Enables the user to create a new case.

exit	Causes the current run of CASCON to be terminated.
list definitions or list commands	Prints a list of definitions or texts of commands.
list cases	Prints a list of all the full case names in the data base as well as their dates and case codes. The user can thenceforth use these codes in instructing or interrogating CASCON.
list case codes	Prints a list of the three-letter case codes.
list cases in	Prints code names of the group of cases previously selected and named.
list factor categories	Prints a list of the factor categories.
list factor codes	Prints a table of effects and influences and their corresponding numerical values.
list factors in	Prints shortened test of factors in list previously selected and named.
list factors long text	Prints full text of factors specified.
list measures	Prints measures logically corresponding to specified factor(s), or by either factor category or measure category, or the full catalogue of measures.
modify	Alters or adds descriptors or factor codings of a user case.

name cases (or factors)	Enables user to give a temporary name to a group in order to subject it to CASCON routines.
print	Prints list of cases developed in compare routine.
select cases	Chooses cases on the basis of criteria specified by user and groups them for analysis or comparison.
select factors	Chooses factors on basis of criteria specified by user, i.e., phase number (1, 2, or 3), case (using case code name), effect, influence, or special case group selected by user.

1.5 Additional Information

Quiet entry to CASCON:

After you become familiar with CASCON you can skip even the paragraph and questions by answering

yes

to CASCON's question:

Do you want to continue your previous session?

If you type

yes

followed by Carriage Return, it will print

Type command.

You then can give it any of CASCON's commands. The sequence for getting into CASCON this way would then look something like the following:

CASCON

Enter your user id *lpb*
Do you want to continue your previous session? *yes*
Type command.

Factor Numbers:

Factor numbers are always written by the user prefixed with the Phase number, e.g., 1-67, 2-103, 3-2. The numbers and hyphen should always be connected with no space between them.

Command Specifications:

Whenever the user types a command or response or gives a name in which he uses more than one word, he must either hyphenate the phrase or enclose the item in quotation marks. Situations in which this commonly occurs might involve group names or user-entered case names (e.g., *"dispute only"*, *"cases like mine"*, *"ulster 2"*, etc.). Therefore user must type it the same way.

Command Execution:

Each command must be followed with a semi-colon in order to be complete. Several commands may be typed on a single line, but each must be followed by a semi-colon. These commands will be executed in the order in which they are typed.

Only when the user hits the "Carriage Return" key after typing the line will the system notice that a line has been typed, and execute any commands on that line. If no semi-colon is put at the end of a command but the Carriage Return is hit, CASCON will wait for completion of the command before responding.

Case Codes Abbreviations:

All of the 52 cases in the CASCON II data base must be referred to by a short 3-letter case code whenever typed by the user. The codes are found in Section 2.1 below, or can be obtained on-line by instructing CASCON to

list cases

Note that they always consist of three capital letters.

Getting Lost:

Typing a question mark and a Carriage Return will instruct CASCON to type out what it is currently looking for at any time the user is at the console by simply typing:

define or *command* _____

followed by the appropriate word, a semi-colon and Carriage Return.

Cutting Short a Sequence:

If you want CASCON to stop doing the step it is following (such as printing out a list) hit the Interrupt (or ATTN) button on the console, and CASCON will stop. You will temporarily go out of CASCON and back to MULTICS, which will print the word

QUIT

and a so-called "ready message" , e.g.

```
QUIT
r 1915 $.85
```

If you then type

pi

and a Carriage Return you will get back to CASCON which should say:

Type Command.

You then then can go on.

If there seems to be any problem at that point, it is always possible to get back into CASCON from MULTICS by simply typing:

Cascon

and a Carriage Return. The system will respond by asking for the user's ID and then asking if he wants to continue the previous session. If he says

yes

CASCON then skips all the preliminaries and goes straight to command level. The sequence will look like this:

QUIT
r 1735 $.17

Cascon
Cascon
Enter your user id *lpb*
Do you want to continue your previous session? *yes*
Type command.

Factor Coding:

All case data are coded in the data base (and new "user cases" are entered into the system) in accordance with the following scale:

Code	Meaning
1	No information is available about this factor.
2	Factor is not present in this case (or statement is not true for case).
3	Factor is present (or true) in this case but has no effect on the case.
4	Factor has much influence toward intensified conflict
5	Factor has some influence toward intensified conflict.
6	Factor has little influence toward intensified conflict.
7	Factor has much influence away from intensified conflict.
8	Factor has some influence away from intensified conflict.
9	Factor has little influence away from intensified conflict

Figure 1. is a sample page from the CASCON II Revised Coding Form.

FIGURE 1. FACTOR CODING FORM SAMPLE PAGE

PHASE III-12.

1. If insufficient information, check box one (1)
2. If situation not present or true, check box two (2)
3. If present but no influence, check box three (3)
4. If a factor, check as appropriate 4,5,6,7,8, or 9

GENERAL STATEMENTS ABOUT LOCAL CONFLICTS	NOT A FACTOR: NO INFO. 1	NOT A FACTOR: NOT TRUE/ PRESENT 2	NOT A FACTOR: NO IN-FLUENCE 3	A FACTOR: FACTOR TENDS TOWARD INCREASED VIOLENCE: MUCH INFLUENCE 4	SOME INFLUENCE 5	LITTLE INFLUENCE 6	A FACTOR: FACTOR TENDS AWAY FROM INCREASED VIOLENCE: MUCH INFLUENCE 7	SOME INFLUENCE 8	LITTLE INFLUENCE 9
89. The strategic interests of one side that led to its intervention in hostilities continue to be important.									
90. Only a small proportion of each side's forces are engaged.									
91. A large proportion of each side's forces are engaged.									
92. The military strength of one side increases.									
93. The military tactics pursued by the "status quo" side tend to restrict the scale and scope of hostilities at this time.									
94. Arms available to "non-status quo" side are primitive and few, also training and organization are weak.									
95. Hostilities having broken out almost accidentally, neither side is in a position to follow up.									
V. INTERNATIONAL ORGANIZATION: LEGAL: PUBLIC OPINION * * * * * * * * * * * * * 96. The United Nations begins to assert itself strongly.									

Typing Errors:

If you make a typing error, there are two ways to correct it.

a. Pressing the # key tells the system to ignore the character just typed; thus, *ys#es* will be interpreted as *yes*.

b. Pressing the @ key tells the system to ignore all previous characters on the same line; thus, *nwe@new* will be interpreted as *new*.

It might look something like this:

Type command. *display QUT descritpros@display QUT descriptors factor 1-8#18 to 1-25;*

Type command. *display QUT descritp##ptors factor 1-13 to 1-25;*

If you do not happen to notice that you have made a typing error, the system will respond (after you press Carriage Return) with an appropriate message.

PART 2

CASCON COMMANDS

2.1 Introduction

After you have completed the introductory material (or if you have skipped it), CASCON will say:

Type command.

You can respond with any of the commands described in this part of the manual. Certain of these commands lead you through a series of questions to which you must respond as described in the following sections.

It is useful to emphasize here CASCON's two main capabilities. First, you can manipulate the 52-case data base in various ways, e.g., asking which of the cases have certain factors in common, or had factors in certain categories or phases that were expertly coded as tending toward or away from intensified conflict. Second, you can put in a new case of your own choosing and coding, and then have CASCON make various comparisons between your "user case" and some or all of the data base cases.

The 52 cases in the data base and their codes are shown in Figure 2.

FIGURE 2. CASCON II - 52 CASES

		Short Case Code
ADEN (SOUTH YEMEN)	1963-67	ADY
ALGERIA	1954-62	ALG
ALGERIA - MOROCCO	1962-63	ALM
ANGOLA	1961	ANG
ARAB - ISRAELI WAR	1967	AIW
BAHRAIN	1970	BAH
BAY OF PIGS	1961	BOP
BOLIVIA	1967	BOL
CONGO (KATANGA)	1960-63	CON
CUBA	1952-59	CUB
CYPRUS (COMMUNAL)	1963-	CYC
CYPRUS (ENOSIS)	1954-59	CYE
DOMINICAN REPUBLIC	1965	DOM
DOMINICAN REPUBLIC - HAITI	1963	DRH
ECUADOR - USA	1963-	EUS
EL SALVADOR - HONDURAS	1969-	ESH
GHANA - UPPER VOLTA	1964-66	GUV
GREEK INSURGENCY	1944-49	GRI
GUATEMALA	1954	GUA
GUINEA - IVORY COAST	1966-67	GIC
GUINEA - PORTUGUESE GUINEA	1970	GPG
GUYANA - VENEZUELA	1970	GYV
INDIA - CHINA BORDER	1954-62	ICB
INDIA - PAKISTAN	1965-66	INP
INDONESIAN - MALAYSIAN CONFRONTATION	1963-65	IMC
INDONESIAN WAR OF INDEPENDENCE	1945-49	IWI
IRAQ (KURDS)	1958-63	IRK
KASHMIR	1947-49	KAS
KUWAIT - IRAQ	1961-63	KUI
LAOS	1959-62	LAO
LEBANON	1957-58	LEB
MALAYAN EMERGENCY	1948-60	MAE
MOROCCO - MAURITANIA	1957-70	MOM
MOROCCO - SPAIN	1956-	MOS
MUSCAT & OMAN	1957-	MUS
NICARAGUA - COSTA RICA	1955-56	NCR
NICARAGUA - HONDURAS	1957-60	NIH
NIGERIA (BIAFRA)	1967-70	NIB
PALESTINE	1947-49	PAL
PANAMA	1964	PAN
PHILIPPINES (HUKS)	1946-54	PHH
QUEMOY - MATSU	1954-58	QUM
SINAI	1956	SIN
SOMALIA - ETHIOPIA - KENYA	1960-64	SEK
SOUTH TYROL	1957-69	STY
SOVIET - IRAN	1945-46	SOI
SUEZ	1956	SUE
SYRIA - TURKEY	1956-57	SYT
TRIESTE	1945-54	TRI
VENEZUELA	1960-63	VEN
WEST IRIAN	1957-62	WIR
YEMEN	1962-69	YEM

There are five basic types of user commands in the CASCON system:

(1) The *select* commands (2.2 -) tell the system to assemble a set of cases, or factors, on the basis of criteria you have specified, for your further use in analysis or comparison.

(2) The *list* commands (2.2-, 2.3-) tell the system (a) to print information about the classification of data in the system, as factor definitions, codes, categories, etc., or (b) to retrieve names of cases or factors which satisfy user-specified criteria, including sets of cases or of factors you have selected and named.

(3) *display* (2.4) tells the system to print case information (descriptors, categories, factors, summaries) it has stored; this also includes information about a user case that has been provisionally stored.

(4) *enter* (2.5) is used to create a new user case or to add information to, or modify, a current user case.

(5) *compare* (2.7) tells the system to compare the current user case to data in the 52 data-base cases, either in toto, or grouped by six different types.

Each command is discussed in one of the following sections.

2.2 *select* or *list*

This command selects and stores sets of cases or factors for manipulation by the user. He has CASCON make such groups by giving it criteria from which to form such a set. If he starts the procedure

with the word *select*, it means the group will be formed as commanded but not printed out at once. Instead it will be stored internally in the computer, which will acknowledge that it has done the operation by simply indicating the number in the group selected, e.g.,

Type command. *select cases in hostilities;*
40 cases selected.
Type command.

In order to be able to use his results later, the user should give his group a name, e.g.

name cases alpha;

or

name factors asia;

etc. Then later, when he wants to print out the group, he uses the *list cases in* command, as:

list cases in alpha;

or

list factors in asia;

The other way to call up the list he had stored under *select* is to refer to the group by an asterisk (*), if it is the last such group formed. In that case he can have its component cases or factors printed by saying

list cases (or *factors*) *in* *;

If, on the other hand, he wants to have his selected cases or factors printed out at once, he starts the routine with the word *list* rather than the word *select*. In that event the group of cases (or factors) will be printed out as soon as he has completed the command with a semi-colon and Carriage Return.

2.2.1 *select* (or *list*) *cases*:

This command starts the process of building a set of cases from the 52 case data base on the basis of criteria provided by the user. This command enables him to make and either retrieve or store a list of every data base case (1) in which a given factor has the effect and influence he is interested in and specifies, or (2) any factor in a given category has the specified effect and influence, or (3) which was interstate, internal or colonial, or (4) which did not intensify to conflict or hostilities, or went to hostilities or to settlement. These seven groups are already in CASCON; the user's operations can be limited at his discretion to cases in one or more particular groups that interest him. The names they have in the system are as follows; these must be used correctly:

interstate
internal
colonial
"dispute only", i.e., never went beyond Phase 1
"conflict only", i.e., never went into hostilities
hostilities, i.e., went to Phase 3
settlement

(Note that compound words which are not hyphenated must have quotation marks around them.)

Thus, the user starts this command with

Select (or *list*) *cases*

followed by the criteria he is using in making his selection. The first is factor.

Factor:

Right after typing *select* (or *list*) *cases* he types *factor* followed by the factor or factors he is interested in. Factor numbers are always given with the Phase number first, followed by a hyphen and then the factor number from the phase in question (e.g., 1-67, 2-103, 3-2). Alternatively, he can type in the name of an entire category, which will include all the factors in that category, for that phase. In this case he types *category* and its name followed by phase number *(1, 2,* or *3).*

The factors are divided into eleven categories, and if the user wishes to limit the search to a particular category he would use one of the following names. The system uses the first word only of the name.

Factor Categories

Previous or general relations between sides
Great power involvement
External relations generally
Military-strategic
International organization (UN, legal, opinion)
Ethnic (refugees, minorities)
Economic
Internal political
Characteristics of one side
Communication and information
Actions in disputed area

So far then he might have typed:

select *cases factor 1-67, 2-103, 3-2;*
(or *list*) (or *category communication 2;*)

A user-named group of factors (constructed as described below) may be used in place of a category name, e.g., *category alpha 2;*

Effect:

This is the direction "toward" or "away" from intensified conflict according to which he wishes CASCON to select cases. Effect also includes "no info", or "pni" (present but no influence). Factors are also coded as not present "np". He does not type the word "effect" but simply *toward, away, no info, pni* or *np*. He can also use *present* to include all factors coded as having an effect; or *info* for factors other than those coded "no info".

Influence:

The effect "toward" or "away" can either be used alone, or modified to specify the degree of influence toward or away from intensified conflict, e.g., *much*, *some*, or *little*. If he wishes to, he types in one of those three words before either *toward* or *away*. He can thus limit the search to any of the following:

toward	pni
away	np
little away	noinfo
some away	present
much away	info
little toward	
some toward	
much toward	

Thus what he has typed so far might read:

select cases factor 1-67 2-75 2-101 3-69 much toward;
(or *list*) (or *category economic 1)*
(or *category alpha 3)*

Group:

He can further limit the list of cases he is generating with these criteria by specifying type of case, i.e., one of the basic groups into which all 52 cases are divided (interstate, internal, and colonial), or by "dispute only", "conflict only", hostilities, or settlement. If he wishes to have the selection of cases limited to one such group, he adds *in*, followed by the name of one of these seven groups, or a group he may have created himself. If he has neglected to name a group just selected, he can still print out the list of that set of cases by typing an asterisk (*) after *in*.

Say the user wants to have CASCON make a list of all the cases in the data base that contain factors relating to internal politics in the earliest(or "dispute") phase, that expert coders have deemed to tend away from the intensification of the dispute. He wishes to have the search limited to cases of interstate disputes. His command would go like this:

select cases category internal 1 away in interstate;

If he used *select*, CASCON will respond with, e.g.,

42 cases selected
Type command.

If he used *list*, CASCON would respond with, e.g.,

42 cases selected.
ADY
ALG
ALM
etc.

2.2.2 *name cases (or factors)*:

Having instructed CASCON to make such an internal set of cases having the characteristics specified, he can give a name to the group in order to subject it (rather than the entire data base) to other CASCON routines such as *list factors* and *compare*. The name given it refers to the immediately preceding group selected. That name should, of course, not be exactly the same as one of the 52 data base case names or codes, or the 7 special groups. A typical temporary group name might be "peace-making". (Remember about quotes around phrases employing spaces.) Particularly after employing the *compare* routine, one might give the resultant group a name such as cases-like-mine (or "cases like mine"). A command might be:

name cases "peace making";

If the user wants the list of resultant cases printed out, he starts a command with *list*. If he wants the grouping stored without being printed out, he starts with *select*. By saying *name factors* the same procedure can be used to give a working name to a group of factors produced by the *select* or *list factors* routine (below).

2.2.3 *select (or list factors)*:

This command does for factors what the previous command did for cases. The user employs it to build a list of factors selected by CASCON from the data base of 52 cases x 482 factors, in accordance with criteria specified by the user, adding up to a list of factors certain cases have in common. The criteria he uses to build a list of factors which a certain case contains, or a group of cases has in common, is as follows in the order shown:

Phase:

The factors may be limited to a given phase by typing *phase* and the desired phase number: *1*, *2*, or *3*.

Case, Influence, and Effect:

The factors may be selected by their effect and influence in a given case or groups of cases. The user types the word *case* followed by a three letter capitalized code name for the case desired, or the name of the group desired. A reference to the user's own case may be made by specifying the code name he gave it. Following the case or group name, an effect and (if desired) influence, (as discussed under *select cases*) may be typed. If he is asking about one case, the factors which had the given effect (qualified by influence if typed) are printed (or stored, depending if he used *select* or *list*). If he asks about a group of cases, the factors which had the given effect in any of the cases are typed in a single list.

So far, then, he might have said:

select factors phase 3 case ALG much toward;
(or *list*)

Group:

To restrict the search to only a portion of the factors, a previously stored group of factors may be referenced by typing *in* followed by a group name. Such a group may be either a user group constructed by the *name factors* command, or a factor category name.

Using *list* (or afterward saying *list factors in* *;) would produce the stored text of the factors in question, e.g.:

Type command.
list factors phase 3 case ALG much toward in military;
3-66 Force used to strengthen diplomacy.
3-70 Guerrilla warfare.
3-72 Uncontrollable military and para-military units
3-89 Strategic interests continue in importance
Type command.

Giving a name to that group of factors selected (e.g., *gus*) would enable these factors to be manipulated later with either *select* or *list*, e.g.,

select factors in gus;

would produce:

4 factors selected
Type command.

If the first word is *list*, the system prints out:

Type command. *list factors in gus;*
4 factors selected.
3-66 Force used to strengthen diplomacy.
3-70 Guerrilla warfare.
3-72 Uncontrollable military and para=military units
3-89 Strategic interests continue in importance
Type command.

Another example might be:

Type command. *list factors phase 3 case mycase some away in economic;*
8 factors selected
3-130 NSQ faces economic problems.
3-131 SQ faces economic problems.
3-132 SQ threatened with cut in economic assistance.
3-133 NSQ threatened with cut in economic assistance.
3-134 Powers threaten economic cut.
3-135 Activities weaken economy.
3-136 Threat to important economic resources.
3-137 Costs of hostilities burdensome.
Type command.

Or user requests, for every category of the current case, a list of factors having much influence toward intensified conflict.

Type command. *list factors phase 3 case user-case much toward;*
13 factors selected.

3-1	SQ removes leader of NSQ.
3-13	Dangers of all-out war increased.
3-14	NSQ gains no advance toward goal.
3-20	NSQ achieves primary goals.
3-61	NSQ moves against SQ supply lines.
3-69	Arms supply not cut.
3-70	Guerrilla warfare.
3-72	Uncontrollable military and para-military units.
3-84	One sides troops too close.
3-88	Forces unable to secure objectives.
3-125	Violence between ethnic groups.
3-126	Ethnic group riots.
3-129	Worry over ethnic groups.

2.3 *list*

Using a variety of *list* commands, one can also instruct the system to list information such as case names, short case codes, factor codes, factor categories, factors, factors within a given category, the long text of factor definitions, the measure associated with each factor, and groups of cases or factors the user has previously selected and named.

2.3.1 *list cases;*

This command causes the system to list the full names and dates of the 52 data-base cases, plus the 3-letter case name codes.

2.3.1.1 *list case codes;*

This prints out the 3-letter case codes of all the cases in the data base, plus any "user cases" currently being held.

2.3.2 *list factor categories;*

This command causes the system to list the names of factor categories.

2.3.3 *list factors long text*

The system responds to *list factors long text* by asking for a factor number. Type in the number of the factor for which you want a complete definition (such as appears with each factor on the Factor Coding Form, prefixed by the phase number). This command is followed by a factor number if user simply wants full text, or can be substituted for the *list factors* routine outlined in 2.2.3, but will print long rather than short text of factors selected.

Type command. *list factors long text 3-1;*
3-1 "Status quo" side removes leader of other side who could have restraining influence.
Type command.

2.3.4 *list factor codes;*

This command causes the system to print the following table:

Code	Name	Meaning
1	noinfo	--no information
2	np	--not present
3	pni	--present, no influence either way
	toward	--tending toward violence
4	much toward	
5	some toward	
6	little toward	
	away	--tending away from violence
7	much away	
8	some away	
9	little away	

2.3.5 *list measures*

The system contains an extensive catalogue of violence-avoiding, peace-tending policy measures (see Part 4 of this manual) which were originally derived from the conflict-specific factors in the cases studied (as described in the Introduction). Each of the 482 general factors in CASCON II now has one or more general measures associated with it. These may be called up by asking for measures related to specific factors.

If the measure associated with one specific factor is wanted, the user acts as follows:

Type command. *list measures 2-1;*
4 measures selected.
IV.H. Emphasize the benefits of accommodation over the weakness associated with it
V.G. Discourage either side's hope for decisive victory (if conflict-minimizing)
V.J. Make certain that both sides are aware of all the implications of their actions
VI.C. Emphasize areas of common interest between the sides
Type command.

If a group of measures associated with more than one factor is wanted, the several factors are stipulated, e.g.,

Type command. *list measures 1-17 1-18 1-19;*

Or if a group of factors has been made, the *list measures* command can tell CASCON to list the measures for all the factors in that group, saying, e.g.,

list measures in alpha;

or if no name was given, but it was the last group made, one can use the asterisk, as follows:

Type command. *list measures in *;*
14 measures selected.

III.C.	Promote accommodation of interests
IV.A.	Employ multilateral time-stretching devices
IV.C.	Promote peaceful multilateral procedures including conciliation, good offices, arbitration, or adjudication
IV.C.3.	Threaten sanctions against a side unwilling to accept negotiated solutions
IV.F.	Promote multilateral guarantees of any agreements reached, and their implementation
IV.G.	Pressure sides to stand by agreements
IV.H.	Emphasize the benefits of accommodation over the weakness associated with it
V.B.	Encourage sides to distinguish between minor irritations and real security threats
V.G.	Discourage either side's hope for decisive victory (if conflict-minimizing)
V.J.	Make certain that both sides are aware of all the implications of their actions

VI.A. Encourage the sides to clarify their position and that of involved powers with regard to the conflict

VI.C. Emphasize areas of common interest between the sides

VI.D. Encourage toleration of differences

VII.A. Strengthen internal security, domestic controls, and military and police forces in non-aggressive side while weakening them in the aggressive side

Type command.

He can also have the measures listed according to individual factors instead of lumped together, if he uses the semi-colon in a string of commands to separate them, as follows. (Note the typing correction here.):

Type command. *list measures 2-72; list mes#asures 2-90;*

3 measures selected.

III.C. Promote accommodation of interests

X.B. Minimize inter-group conflicts

X.C. Support looser forms of political association

3 measures selected.

II.A. Introduce a neutral third party force in the area of conflict

II.E. Apply political and economic pressures

II.F. Promote action by international and regional organizations to forestall or condemn aggression

Type command.

Finally, he can use the same criteria employed in *list factors* to have CASCON find the factors having certain characteristics, but then list not the factors, but the measures associated with them:

Type command. *list measures phase 3 case QUT much away;*

If he just commands CASCON to

list measures;

it will print out the entire catalogue which should, of course, be avoided. If he does this by error he can stop it by hitting the Interrupt (or ATTN) button on his console and then returning to CASCON as described in 1.5 under Cutting Short a Sequence.

2.4 *display*

To instruct the system to display an entire case or some chosen part of a case, the user types *display* followed by the case code for the case desired. He may then call up one or more of the following pieces of information by specifying how he wants the case displayed:

Descriptors: Typing the word *descriptors* will cause the case name, dates, sides, phases, and type to be printed out.

Precis: Type *precis* to print out a brief historical summary of the case.

Category: If the user types the word *category*, followed by a factor category name and phase number, the system will list the factors in that category and phase, along with the corresponding factor codings for the case. Omitting the phase number will cause all phases to be printed.

Factor: The word *factor* followed by a factor number causes that factor and its coding for the case to be listed. Any series of factors and their codings can be printed out by typing *to* between the first and last factor number desired.

For example, to get the descriptors only, the sequence would be:

Type command. *display PAN descriptors;*
Case PAN
Name ...Panama 1964
Status quo side ...USA
Non status quo side ...Panama
Phase 1 ...to 1/9/64
Phase 2 ...1/9/64-4/3/64
Phase 5 ...4/3/64-
Type command.

To display just the factors (with effects and influences) within a given category, the following sequence might occur (also showing typing correction):

Type command. *display fact@display AIW factor 2-1 to 2-10;*
Case AIW
2-1 present, no influence
2-2 little away
2-3 some toward
2-4 much toward
2-5 much toward
2-6 some away
2-7 much toward
2-8 much toward
2-9 not present
2-10 not present
Type command.

CASCON will display a summary of approximately a half page whenever the user types *precis*, as in this example:

Type command. *display TRI precis;*

TRIESTE, 1945-54

Summary

Phase I: June 1945-August 29, 1953

After the German collapse, Yugoslavia moved to take over Trieste and the Istrian Peninsula, Italian since 1920, but agreed to temporary Allied occupation of Trieste. The 1947 Italian Peace Treaty established a free territory of Trieste with US-UK forces administering the Northern Zone A, including the city; the Yugoslavs Southern Zone B. Prospects for permanent government foundered on UN Security Council failure to agree on a Governor. On May 20, 1948, prior to critical Italian elections and Tito's break with Moscow, the US, UK, and France proposed returning all Trieste to Italy. In 1952 Italy was permitted to take over civil positions in Zone A. Yugoslav proposals for settlement along ethnic lines were rejected.

Phase II: August 29, 1953-October 1954

With each party fearing action by the other to seize disputed areas, the Italian Army and Fleet were placed on alert. Yugoslavia took no immediate countermeasures, but after a US-UK decision to withdraw in favor of Italy in Zone A was announced on October 8, 1953, she threatened to send in troops if Italian forces entered. US-UK acceptance of possible partition quieted the situation and led to eventual agreement outside the UN.

(Phase V: October 5-25, 1954)

On October 5, 1954, a Memorandum of Understanding was signed providing Italy with Zone A, including the city, with a small strip in the south to go to Yugoslavia. The latter would use the free port, and institute civil authority in Zone B.

(S: October 25-26, 1954)

On October 25-26 the two countries assumed control.

Type command.

2.5 *enter*

The *enter* command may be used to enter new cases and to modify previously entered ones. A user case -whether the first time entered or any other time - may be the subject of *select*, *list*, *display*, and *compare* commands. The 52 cases in the standard data base may not be modified.

The *enter* command is started by typing the word *enter* and pushing Carriage Return. Thereafter the system will ask the user for the required data, starting with a case name (remember, hyphens or quotes for compound names) followed by a three letter case code not already used. (If the user does not understand what is required for a particular item, he should type a question mark followed by a Carriage Return and the system will type a message describing the item more fully.) Otherwise it goes like this:

Type command. *enter*
Case name *Ruritania-Slobbovia* (Carriage Return)
Case code *RUS* (Carriage Return)

The sequence continues with CASCON asking, in order, the sides to the case (status quo and non status quo, i.e., which side is "activist" and against whom) and the phases of the case so far with their dates.

CASCON will continue to ask for phases until user types *end* and makes a Carriage Return. CASCON will then ask to which of CASCON's 7 groups the new case belongs and will continue to ask until user says *end*. The sequence will then look like this:

Type command. *enter*
Case name: *Ruritania-Slobbovia* (Carriage Return)
Case code: *RUS* (Carriage Return)
Status-quo side: *Ruritania* (Carriage Return)
Non-status-quo side: *Slobbovia* (Carriage Return)
Enter phase number and dates for each phase.
Phase *1 1961-70* (Carriage Return)
Phase *2 1970-71* (Carriage Return)
Phase *3 1971* (Carriage Return)
Phase *end* (Carriage Return)
Groups: *internal colonial hostilities* (Carriage Return)
Groups: *end* (Carriage Return)
Enter factors.

The user then enters a list of numbers beginning with a factor number, listed in standard form (phase number and factor number, separated only by a hyphen, e.g., 2-108). Following each factor number, one or more codings are entered. These codings will represent the factor specified, plus successively numbered factors within the same phase. Whenever the user pushes the Carriage Return, the system will reply with the number of the next factor it expects a coding for. If the user wishes to enter a factor out of sequence, he simply enters a new factor number and a new sequence is begun. The list may be terminated by a semi-colon, which ends the *enter* command. Entering factors will then resemble the following:

Groups: *end*
Enter factors *6 2 5 6 5 2 2 6* (Carriage Return)
1-9 *9 8 9 8 7 7 5 2 5* (Carriage Return)
1-18 *8 2 4 2 2 3 2;*
Type Command.

As you can see, this makes it possible for a user who has coded his new case on a CASCON II codebook to transfer the codes speedily into CASCON. If he makes a typing error CASCON helps him out, as follows:

```
Enter factors 1-15 8 6 2 1 7  (Carriage Return)
1-20 3  6  8  2 6 72    (Carriage Return)
Incorrect coding (72)       for factor 1-25.

1-26   1-25 7  2  2  2  3  9  3
1-32   3  2  4  2  6  2  2
1-39   2  4  2  7  2  7  2  3  2  2  5  1  8  8  2  8  2
1-56   2  8  6  2  7  2  2  2  3
1-65   2  2  3  2  3  4  4  4  7  2  2  7  5  2  2
1-80   4  2  7  4  4  5  8  1  2  2  4  4  4  4  2  5
1-96;
Type command.
```

It is possible to compress the process of entering, and put all the data in one command, using the word *end* after giving the desired phrases and groups as:

```
Enter phase number and dates for each phase.
Phase 2 "Mar. 4, 1971" 3 "Dec. 7, 1971" end colonial
        hostilities internal end
Enter factors   1-1 5 2 6 7 6 5 4 5 6 7 6 5 4 3 4 5 6 7 6 5;
```

Finally, if one does not have a codebook, a new case can nevertheless be entered, with CASCON supplying on-line the short text of each factor. For this the user employs the word *text* instead of a coding value after CASCON prints the factor number, which the user then follows with the code and a Carriage Return:

```
Enter factors 1-1 text
1-1     Competing territorial claims.
2
1-2  text
1-2     One side undermined other.
4
1-3  text
1-3     "Middle-ground" liquidated.
4
1-4  text
3-1     SQ removes moderate NSQ leader.
```

In this manner the user may enter and completely code a new case in one session. On the other hand, if he prefers to code only a few factors at a time, the system allows him to do so, in the *modify* routine (below). Of course, the user must be sure to save his previous work (see 2.9 below).

2.6 *modify*

Any user case may be modified by using the *modify* command. When the user types

modify

plus the case code and a Carriage Return, CASCON will type

modify what?

User can respond with any or all of the following:

name
sqside
nsqside
phases
factors

each followed by the same kinds of specification he used in entering. Modifying only some factors would look like this:

Type command *modify QUT* (Carriage Return)
Modify what? *factors*
Enter factors 1-1 *2-1 6 2 5 6 5 2 2 6*
2-9 *9 8 9 8 7 7 5 2 5*
2-18 *8 2 4 2 2 3 2*
2-25 *7 2 2 2 3 9 3 3 2 4 2 6 2 2*
2-39 *2 4 2 7 2 7 2 3 2 2 5 1 8 8 2 8 2*

```
2-56   2 8 6 2 7 2 2 2 3
2-65   2 2 3 2 3 4 4 4 7 2 2 7 5 2 2
2-80   4 2 7 4 4 5 8 1 2 2 4 4 4 4 2 5
2-96   2 7 1 4 7 3 3 5
2-104  2 7 4 8 8 5 2 2 6 4 2 2 2 3 6 6 7
2-121  7 1 8 2 3 5
2-127  2 8 2 2 4 1 2 2 1 8 2 2 2 2 2
3-1;
Type command.
```

Note that, as with *enter*, typing a semi-colon ends the *modify* sequence.

2.7 *compare*

The *compare* command is a key feature of CASCON that enables you to determine which group of data in the data base is most "similar" to the data in the current case. You can then display and list information from the relevant cases for a wide variety of purposes, such as to determine if you are overlooking important factors or remedial policy measures. Furthermore, your historical knowledge of actions taken (and their results) in these cases can act as a guide to possible action in the current case. (needless to say, no two cases are identical, but clusters of factors are often similar.) (CASCON II does not include actions taken in the data base cases, but this data is being researched and hopefully will be in CASCON III.)

The current case may be compared with all 52 cases in the CASCON II data base. Or it may be compare with only some of these cases. For instance, it may be compared only with the 30 cases of interstate conflict, or the 16 primarily internal cases, or the 6 colonial cases. It may be compared to one of the additional types such as "dispute only", "conflict only" or hostilities. Or it may be compare to a set of cases the user designates through the *select* and *name* routines.

CASCON makes the following assumptions:

1. Two cases seem similar if they have present the same factors, and if these factors have the same effects (toward and away from intensified conflict)

2. Two cases seem similar if the same effect are not present in them. The crucial similarity, to repeat, is in factors, not cases.

These two notions are incorporated in the "comparability statistic" (2.7.2). The "information statistic" (2.7.1) is designed to measure simply the amount of mutual information two cases contain. The "distance statistic" (2.7.3) incorporates a user-controlled USE vector which allows various hypotheses concerning the relative importance (as regards the notion of "similarity") of factor values. The USE vector, in effect, provides a means of weighting each factor value according to one's theory of its significance (see below).

If the user wants to compare to all 52 cases, he types *compare* followed by the name of the case to be compared and *1*, *2*, or *3* (unless entire case is to be compared, but it is strongly urged that *compare* always be by phases, to give the historically most meaningful results.)

Type command. *compare QUT phase 2;*

If he wants to compare a case to a more limited group of cases, he says *compare* and the case code followed by *to* plus any single case or group name, whether a user-created group or one of the 7 pre-constructed groups, i.e., interstate, internal, colonial, "dispute only", "conflict only", hostilities, settlement; followed by *phase* and number *1*, *2*, or *3*.

Type command. *compare QUT to hostilities phase 3;*

In doing this he is accepting the standard CASCON "USE" vector which is explained below. If he wants to specify his own "use values" (such as a value of 1 for all factors coded as tending away from intensified conflict and 5 for all those tending toward, etc.), he says:

compare QUT to hostilities phase 3 use 0 1 1 1 5 5 5;

If the "use" and "value" are left out, CASCON will assume that the user wishes it to use the standard USE vector. (The standard USE vector, and instructions for inserting a different USE vector, are given in 2.7.3.) The results of a comparison are stored internally and typed out only when a *print* command is given. If user only is going to make one comparison at that session, he can print out these results any time by saying:

print;

If he is going to make several different comparisons he should print out the results before the next comparison.

CASCON II also has the special feature of printing out only the cases with the most statistically significant relationship to his case. He can say *print highest 3* (or 6, or whatever number) *comparability* (or *c*) *lowest 3* (or 6, or whatever) *distance* (or *d*) followed by semi-colon and Carriage Return. He can also include these commands following his overall *compare* instruction to CASCON, separated by semi-colons.

After having such a selected group developed, he can then also name it, using the *name cases* command, and be able to apply the *list factors* and other commands to that(or any other) named group during the current session at the console. To see what these various *compare* operations might look like, there follow some examples of comparing a hypothetical new case (QUT):

First, a comparison, limited only by phase, to the entire 52-case data base, and printed out at the time:

Type command. *compare QUT phase 2; print;*

53 cases selected.

ADY	.943	.405	.269
ALG	.723	.336	.232
ALM	.723	.371	.230
ANG	.723	.395	.237
AIW	.957	.362	.343
BAH	0.000	0.000	1.000
BOP	.723	.388	.214
BOL	.723	.322	.368
CON	.957	.458	.292
CUB	.723	.412	.218
CYC	.957	.358	.261
CYE	.723	.457	.208
DOM	.723	.347	.217
DRH	.943	.324	.312
EUS	.957	.413	.196
ESH	.901	.300	.222
GUV	.957	.383	.265
GRI	.723	.389	.250
GUA	.716	.298	.278
GIC	.950	.405	.245
GPG	.957	.357	.220
GYV	.957	.394	.350
ICB	.723	.366	.289
INP	.957	.408	.258
IMC	.716	.281	.200
IWI	.709	.374	.286
IRK	.723	.457	.256
KAS	.723	.381	.326
KUI	.723	.385	.152
LAO	.957	.286	.357
LEB	.723	.389	.287
MAE	.723	.300	.132
MOM	.950	.469	.208
MOS	.957	.483	.265

MUS	.957	.400	.298
NCR	.957	.333	.279
NIH	.950	.301	.306
NIB	.957	.444	.250
PAL	.957	.397	.292
PAN	.957	.449	.202
PHH	.723	.360	.227
QUM	.723	.186	.500
SIN	.723	.321	.250
SEK	.709	.441	.250
STY	.957	.479	.254
SOI	.723	.435	.227
SUE	.723	.336	.194
SYT	.936	.329	.289
TRI	.957	.413	.203
VEN	.723	.373	.200
WIR	.723	.348	.273
YEM	0.000	0.000	1,000
QUT	.957	.651	0.000

Type command.

The user could search the printout for the best matches, i.e., the highest comparability figures and the lowest distance figures. Or he could say:

Type command. *print highest 6 c lowest 6 d;*

11 cases selected.

CON	.957	.458	.292
CYE	.723	.457	.208
EUS	.957	.413	.196
IMC	.716	.281	.200
KUI	.723	.385	.152
MAE	.723	.300	.132
MOM	.950	.469	.208
MOS	.957	.483	.265
STY	.957	.479	.254
SUE	.723	.336	.194
QUT	.957	.651	0.000

Type command.

Or he can have the highest and lowest printed separately as:

```
Type command.   print highest 6 c;
6 cases selected.
EUS      .957    .413    .196
IMC      .716    .281    .200
KUI      .723    .385    .152
MAE      .723    .300    .132
SUE      .723    .336    .194
QUT      .957    .651   0.000
Type command.   name cases jim;
Type command.
```

(Having named the cases jim, he can always ask for that list, or ask what factors of certain types those cases have in common, etc.)

He can, of course have both highest and lowest selections made by writing two commands on the same line:

```
Type command.   print highest 10 c; print lowest 10 d;
10 cases selected.
CON      .957    .458    .292
CYE      .723    .457    .208
IRK      .723    .457    .256
MOM      .950    .469    .208
MOS      .957    .483    .265
NIB      .957    .444    .250
PAN      .957    .449    .202
SEK      .709    .441    .250
STY      .957    .479    .254
QUT      .957    .651   0.000
10 cases selected.
CYE      .723    .457    .208
EUS      .957    .413    .196
IMC      .716    .281    .200
KUI      .723    .385    .152
```

```
MAE      .723     .300     .132
PAN      .957     .449     .202
SUE      .723     .336     .194
TRI      .957     .413     .203
VEN      .723     .373     .200
QUT      .957     .651    0.000
Type command.
```

It can be seen that CYE and PAN appear on both lists, so these could be deemed "most similar", subject to the earlier caveats. If he wants to see what factors tended most to intensification both cases had (in that particular phase) that his new case also has, he could say:

```
Type command.  select factors phase 2 case QUT much toward
                   case CYE much toward case PAN much toward;
3 factors selected.
Type command.  list factors in *;
3 factors selected.
2-90     Militancy increases.
2-91     Negotiations possible only if claim accepted.
2-106    Limited violence assumed to aid diplomacy.
Type command.  list factors phase 2 case QUT much toward;
17 factors selected.
2-20    NSQ ally indifferent to peaceful settlement.
2-34    Neither side controls some clashes.
2-40    Successful models for NSQ.
2-70    Clashes increase with ethnic dissidents.
2-71    Dissident brethren in other side.
2-72    One side seeks ethnic unification.
2-80    One side exploitative.
2-83    Opposition urges speedier change.
2-84    Area sentiment favors change.
2-90    Militancy increases.
2-91    Negotiations possible only if claim accepted.
2-92    Opposition urges force.
```

2-93 Dispute now exaggerated.

2-99 NSQ strategy successful elsewhere.

2-106 Limited violence assumed to aid diplomacy.

2-113 Regional agitation infectious.

2-131 Rebellious groups encouraged.

Type command. *name factors bob;*

And so forth. The technical basis for these calculations is explained in the following section.

2.7.1 Information.

The information statistic ($I_{A,B}$) gives an indication of the amount of confidence to be placed in the results of the other two statistics. A low value for this statistic indicates that the two cases (i.e., the current case and the particular data-base base) have only a few factors in common in the given phase.

The formula for the information statistic (that is, mutual information in cases A and B) is:

$$I_{A,B} = \frac{T_{A,B}}{n}$$

$T_{A,B}$ is the number of factors for which there is information in both cases and n is the total number of factors in the phase. The statistic is printed as a decimal number between 0 and 1. 0 indicates no mutual

information and 1 indicates that both cases have information for every factor in the phase.

2.7.2 Comparability. The comparability statistic ($M_{A,B}$) is designed to generate a value in accord with this theory of comparability:

> Cases A and B have comparable components if either or both of the following is true:
>
> 1. Both A and B have present many of the same factors and the values of these common factors do not have opposite effects (toward or away from violence).
>
> 2. Both A and B have many of the same factors not present.

The statistic is printed as a decimal number between 0 and 1. High comparability (i.e., approaching 1) suggests that similar factors are relevant or not relevant in both cases and that there are few factors which affect one case but not the other. Low comparability (i.e., approaching 0) suggests that factors are not comparable and that little faith should be placed in the distance statistic.

The formula for comparability is:

$$M_{A,B} = \frac{F_{A,B} - \gamma L_{A,B} + \beta N_{A,B}}{T_{A,B} - (1-\beta) N_{A,B}}$$

Where:

$F_{A,B}$ is the number of factors present (i.e., codes 3-9) in both cases.

$L_{A,B}$ is the number of factors present but whose effects tend in opposite directions.

$N_{A,B}$ is the number of factors not present (i.e., code 2) in both cases.

$T_{A,B}$ is the number of factors for which there is information (i.e., all codes except 1) in both cases.

γ a coefficient equal to 1.

β a coefficient equal to .5.

Note that the coefficients, γ and β, have the effect of rendering factors not present only half as significant as factors present.

2.7.3 Distance. The distance statistic ($D_{A,B}$) computes a normalized average factor value difference between two cases. Cases with high average factor value difference tend to be dynamically different; that is, they tend to have the same factors, but these factors contribute different effects (toward or away from violence) or degrees of influence (much, some, little). Cases with low average factor value difference tend to have the same factors, and these factors make similar contributions to the level of violence.

The distance statistic is printed as a decimal number between 0 and 1. A distance near zero indicates that the two cases have almost exactly the same factors present, and that these factors have almost exactly the same effects and influences. A distance near 1 indicates that the two cases have few similarities in factors or effects.

The formula for the distance statistic is:

$$D_{A,B} = \frac{\Sigma \left| USE(VAL(i,A)) - USE(VAL(i,B)) \right|}{F_{A,B} \cdot Max}$$

Where:

$F_{A,B}$ is the number of factors present (i.e., codes 3-9) in both cases.

USE (VAL(i,A))

The system finds the value coded for the i^{th} factor of case A and replaces it (for computational purposes only; no change is made in the data) with the corresponding value from the USE vector.

The result of USE (VAL(i,B)) is subtracted from the result of the USE VAL(i,A)) and the result is taken as an absolute (i.e., positive) value.

Max is the maximum difference between two values in the USE vector (usually the fourth USE vector value minus the seventh USE vector value).

The USE vector is a series of seven numbers with or without signs. In computing the distance statistic, the values from the USE vector replace the corresponding factor code values. Thus, code 3 (pni) is replaced by the first number in the USE vector, code 4 (much toward) is replaced by the second number in the USE vector, and so forth.

The system's standard USE vector is:

0 -1 -1 -1 1 1 1

If you want to insert your own USE vector in *compare*, say *use* followed by nine numbers, with or without signs. The numbers are separated by one or more blanks, as follows:

use 0 4 2 1 -4 -2 -1

Where:

$F_{A,B}$ is the number of factors present (i.e., codes 3-9) in both cases.

USE(VAL(i,A))

The system finds the value codes for the i^{th} factor of case A and replaces it (for computational purposes only; no change is made in the data) with the corresponding value from the USE vector.

The result of USE)VAL(i,B)) is subtracted from the result of USE(VAL(i,A)) and the result is taken as an absolute (i.e, positive) values.

Max is the maximum difference between two values in the USE vector (usually the fourth USE vector value minus the seventh USE vector value).

The USE vector is a series of seven numbers with or without signs. In computing the distance statistic, the values from the USE vector replace the corresponding factor code values. Thus, code 3 (pni) is replaced by the first number in the USE vector, code 4 (much toward) is replaced by the second number in the USE vector, and so forth.

The system's standard USE vector is:

0 -1 -1 -1 1 1 1

This vector gives equal positive weight (1) to any factor coded "away" and equal negative weight (-1) to any factor coded "toward." Factors coded "present, no influence" are placed in between at zero.

If you want to insert your own USE vector in *compare*, say *use* followed by seven numbers, with or without signs. The numbers are separated by one or more blanks, as follows:

use 0 4 2 1 -4 -2 -1

In contrast to the standard vector, the above one would weight those factors having "much" influence as twice as important as those with "some" influence, which in turn are given twice the weight of those with "little" influence. Again factors coded "away" are counted on the positive side and those coded "toward" on the negative side.

2.8 *define*

The CASCON system contains definitions (see 1.3) of most of its standard words. You can request a definition any time you are at command level. If you type *define xxxx*, where xxxx is not a word for which the system contains a definition, the system will respond with

xxxx not defined. (or a comparable comment)

Otherwise it would say something like:

Type command *define threshold;*

A convenient point of demarcation
in time to separate the phases.

2.9 *command*

This word followed by any one of CASCON's command words prints out a brief description of that command, e.g.

command compare;

Compare compares user case (or any case
in the data base) to some or all of the
cases in the data base (see manual for
details)

2.10 *exit*

The user terminates a CASCON session by typing *exit* at command level:

Type command. *exit;*

The system then asks if he wishes to save the work he has done previously, including: any new cases he has entered or modified, lists of cases or factors he has created and named, and the like:

Save status?

For his work to be retained by CASCON until his next session at the console (which is the reason he has his own CASCON user's id), he says *yes* to "save status?" and his work is retained.

If he says *no*, all his work at that (and past) sessions is deleted - new cases he has made or modified, lists of cases or factors, groups he has named, and the like. To repeat, if he says *yes* his user status is saved and the next time he logs in to CASCON it will look like:

cascon
Cascon
Enter your user id *lpb*
Do you want to continue your previous
session? *yes*
Type command.

CASCON II

DESCRIPTORS OF 52 DATA BASE CASES

			(SHORT CODE)	(TYPE)
NAME	ADEN (SOUTH YEMEN)	1963-67	ADY	COLONIAL
STATUS QUO SIDE	UNITED KINGDOM			
NON STATUS QUO SIDE	RIVAL NATIONALIST GROUPS			
PHASE 1 DATES	1/63-12/10/63			
PHASE 2 DATES	12/10/63-11/30/67			
PHASE S DATES	11/30/67			
NAME	ALGERIA	1954-62	ALG	COLONIAL
STATUS QUO SIDE	FRANCE			
NON STATUS QUO SIDE	FLN-ALN			
PHASE 1 DATES	1947-1954			
PHASE 2 DATES	EARLY 1954-10/31/54			
PHASE 3 DATES	11/1/54-3/18/62			
PHASE 4 DATES	3/19/62-7/3/62			
PHASE S DATES	7/4/62			
NAME	ALGERIA-MOROCCO	1962-63	ALM	INTERSTATE
STATUS QUO SIDE	ALGERIA			
NON STATUS QUO SIDE	MOROCCO			
PHASE 1 DATES	- 7/62			
PHASE 2 DATES	7/62-10/8/63			
PHASE 3 DATES	10/8/63-11/2/63			
PHASE 4 DATES	11/2/63-			
NAME	ANGOLA	1961	ANG	COLONIAL
STATUS QUO SIDE	PORTUGAL			
NON STATUS QUO SIDE	AFRICAN REBEL GROUPS			
PHASE 1 DATES	- EARLY 1950'S			
PHASE 2 DATES	EARLY 1950'S-2/3/61			
PHASE 3 DATES	2/3/61-FALL/61			
PHASE 4 DATES	FALL/61 -			
NAME	ARAB-ISRAELI WAR	1967	AIW	INTERSTATE
STATUS QUO SIDE	ISRAEL			
NON STATUS QUO SIDE	UAR			
PHASE 2 DATES	11/6/56-6/5/67			
PHASE 3 DATES	6/5/67-6/10/67			
PHASE 4 DATES	6/10/67-			
NAME	BAHRAIN	1970	BAH	COLONIAL
STATUS QUO SIDE	UNITED KINGDOM(BAHRAIN)			
NON STATUS QUO SIDE	IRAN			
PHASE 1 DATES	1/68-5/11/70			
PHASE S DATES	5/11/70			
NAME	BAY OF PIGS	1961	BOP	INTERSTATE
STATUS QUO SIDE	CUBA			
NON STATUS QUO SIDE	USA			
PHASE 1 DATES	1/1/59-3/60			
PHASE 2 DATES	3/60-4/15/61			
PHASE 3 DATES	4/15/61-4/19/61			
PHASE 5 DATES	4/19/61-			

			(SHORT CODE)	(TYPE)
NAME	BOLIVIA	1967	BOL	INTERNAL
STATUS QUO SIDE	BOLIVIA			
NON STATUS QUO SIDE	CUBAN-LED INSURGENTS			
PHASE 1 DATES	4/52-1/66			
PHASE 2 DATES	1/66-3/23/67			
PHASE 3 DATES	3/23/67-10/67			
PHASE 4 DATES	10/67-			
NAME	CONGO (KATANGA)	1960-63	CON	INTERNAL
STATUS QUO SIDE	CONGO REPUBLIC			
NON STATUS QUO SIDE	KATANGA PROVINCE			
PHASE 1 DATES	6/30/60-7/20/60			
PHASE 2 DATES	7/20/60-9/13/61			
PHASE 3 DATES	9/13/61-1/15/63			
PHASE 4 DATES	1/15/63-1/23/63			
PHASE S DATES	1/23/63			
NAME	CUBA	1952-59	CUB	INTERNAL
STATUS QUO SIDE	BATISTA GOVERNMENT			
NON STATUS QUO SIDE	CASTRO OPPOSITION			
PHASE 1 DATES	1946-3/10/52			
PHASE 2 DATES	3/10/52-12/2/56			
PHASE 3 DATES	12/2/56-1/1/59			
PHASE S DATES	1/59			
NAME	CYPRUS (COMMUNAL)	1963-	CYC	INTERNAL
STATUS QUO SIDE	TURKISH CYPRIOTS			
NON STATUS QUO SIDE	GREEK CYPRIOTS			
PHASE 1 DATES	1960-11/30/63			
PHASE 2 DATES	11/30/63-12/21/63			
PHASE 3_1 DATES	12/21/63-10/64			
PHASE 4_1 DATES	10/64-11/15/67			
PHASE 3_2 DATES	11/15/67-11/16/67			
PHASE 4_2 DATES	11/16/67-			
NAME	CYPRUS (ENOSIS)	1954-59	CYE	COLONIAL
STATUS QUO SIDE	UNITED KINGDOM			
NON STATUS QUO SIDE	CYPRUS			
PHASE 1 DATES	- 7/52			
PHASE 2 DATES	7/52-4/1/55			
PHASE 3 DATES	4/1/55-2/11/59			
PHASE 4 DATES	2/11/59-			

			(SHORT CODE)	(TYPE)
NAME	DOMINICAN REPUBLIC	1965	DOM	INTERNAL
STATUS QUO SIDE	MILITARY JUNTA			
NON STATUS QUO SIDE	BOSCH & PRD			
PHASE 1 DATES	1962-9/63			
PHASE 2 DATES	9/25/63-4/24/65			
PHASE 3 DATES	4/24/65-8/31/65			
PHASE 4 DATES	8/31/65 -			
NAME	DOMINICAN REPUBLIC-HAITI	1963	DRH	INTERSTATE
STATUS QUO SIDE	HAITI			
NON STATUS QUO SIDE	DOMINICAN REPUBLIC			
PHASE 1 DATES	4/11/63-4/28/63			
PHASE 2 DATES	4/28/63-9/25/63			
PHASE 5 DATES	9/25/63-			
NAME	ECUADOR-USA	1963-	EUS	INTERSTATE
STATUS QUO SIDE	USA			
NON STATUS QUO SIDE	ECUADOR			
PHASE 1 DATES	1963-3/12/71			
PHASE 2 DATES	3/12/71-			
NAME	EL SALVADOR-HONDURAS	1969-	ESH	INTERSTATE
STATUS QUO SIDE	HONDURAS			
NON STATUS QUO SIDE	EL SALVADOR			
PHASE 1 DATES	4/69-6/24/69			
PHASE 2 DATES	6/24/69-7/15/69			
PHASE 3 DATES	7/15/69-7/22/69			
PHASE 4 DATES	7/22/69-			
NAME	GHANA-UPPER VOLTA	1964-66	GUV	INTERSTATE
STATUS QUO SIDE	UPPER VOLTA			
NON STATUS QUO SIDE	GHANA			
PHASE 1 DATES	SPRING 1963-7/64			
PHASE 2 DATES	7/64-2/66			
PHASE 5 DATES	2/66-			
NAME	GREEK INSURGENCY	1944-49	GRI	INTERNAL
STATUS QUO SIDE	GOVERNMENT			
NON STATUS QUO SIDE	GREEK COMMUNIST PARTY			
PHASE 1 DATES	- 3/10/44			
PHASE 2 DATES	3/10/44-2/46			
PHASE 3 DATES	2/46-10/49			
PHASE 4 DATES	10/49-			

			(SHORT CODE)	(TYPE)
NAME	GUATEMALA	1954	GUA	INTERNAL
STATUS QUO SIDE	GUATEMALA			
NON STATUS QUO SIDE	CASTILLO ARMAS EXILES			
PHASE 1 DATES	1951-LATE 1953			
PHASE 2 DATES	LATE 1953-6/54			
PHASE 3 DATES	6/18/54-7/1/54			
PHASE 4 DATES	7/1/54-			
NAME	GUINEA-IVORY COAST	1966-67	GIC	INTERSTATE
STATUS QUO SIDE	IVORY COAST			
NON STATUS QUO SIDE	GUINEA			
PHASE 1 DATES	2/24/66-3/10/66			
PHASE 2 DATES	3/10/66-9/25/67			
PHASE 5 DATES	9/25/67-			
NAME	GUINEA-PORTUGUESE GUINEA	1970	GPG	INTERSTATE
STATUS QUO SIDE	GUINEA			
NON STATUS QUO SIDE	PORTUGUESE GUINEA			
PHASE 1 DATES	1963-11/16/70			
PHASE 2 DATES	11/16/70-11/22/70			
PHASE 3 DATES	11/22/70-11/28/70			
PHASE 4 DATES	11/28/70-			
NAME	GUYANA-VENEZUELA	1970	GYV	INTERSTATE
STATUS QUO SIDE	GUYANA			
NON STATUS QUO SIDE	VENEZUELA			
PHASE 1 DATES	1962-2/19/70			
PHASE 2 DATES	2/19/70-6/20/70			
PHASE 5 DATES	6/20/70-			
NAME	INDIA-CHINA BORDER	1954-62	ICB	INTERSTATE
STATUS QUO SIDE	INDIA			
NON STATUS QUO SIDE	CHINA			
PHASE 1 DATES	- 6/29/54			
PHASE 2 DATES	6/29/54-9/8/62			
PHASE 3 DATES	9/8/62-11/21/62			
PHASE 4 DATES	11/21/62-			
NAME	INDIA-PAKISTAN	1965-66	INP	INTERSTATE
STATUS QUO SIDE	INDIA			
NON STATUS QUO SIDE	PAKISTAN			
PHASE 2 DATES	1949-8/5/65			
PHASE 3 DATES	8/5/65-9/22/65			
PHASE 4 DATES	9/23/65-1/10/66			

		(SHORT CODE)	(TYPE)
NAME	INDONESIAN-MALAYSIAN CONFRONTATION	1963-65 IMC	INTERSTATE
STATUS QUO SIDE	MALAYSIA		
NON STATUS QUO SIDE	INDONESIA		
PHASE 1 DATES	- 1/63		
PHASE 2 DATES	1/63-4/12/63		
PHASE 3 DATES	4/12/63-10/1/65		
PHASE S DATES	10/1/65		
NAME	INDONESIAN WAR OF INDEPENDENCE	1945-49 IWI	COLONIAL
STATUS QUO SIDE	NETHERLANDS		
NON STATUS QUO SIDE	INDONESIAN NATIONALISTS		
PHASE 1 DATES	- 8/17/45		
PHASE 2 DATES	8/17/45-LATE 10/45		
PHASE 3_1 DATES	LATE 10/45-10/14/46		
PHASE 4_1 DATES	10/14/46-7/21/47		
PHASE 3_2 DATES	7/21/47-1/19/48		
PHASE 4_2 DATES	1/19/48-12/19/48		
PHASE 3_3 DATES	12/19/48-8/1/49		
PHASE 5 DATES	8/1/49-12/27/49		
PHASE S DATES	12/27/49		
NAME	IRAQ (KURDS)	1958-63 IRK	INTERNAL
STATUS QUO SIDE	IRAQ		
NON STATUS QUO SIDE	KURDS		
PHASE 1 DATES	- 7/58		
PHASE 2 DATES	7/58-8/61		
PHASE 3_1 DATES	8/61-2/10/63		
PHASE 4_1 DATES	2/10/63-6/10/63		
PHASE 3_2 DATES	6/10/63-		
NAME	KASHMIR	1947-49 KAS	INTERSTATE
STATUS QUO SIDE	INDIA		
NON STATUS QUO SIDE	PAKISTAN		
PHASE 1 DATES	- 10/24/47		
PHASE 2 DATES	10/24/47-10/27/47		
PHASE 3 DATES	10/27/47-1/1/49		
PHASE 4 DATES	1/1/49-		
NAME	KUWAIT-IRAQ	1961-63 KUI	INTERSTATE
STATUS QUO SIDE	KUWAIT		
NON STATUS QUO SIDE	IRAQ		
PHASE 1 DATES	6/19/61-6/26/61		
PHASE 2 DATES	6/26/61-1963		
PHASE 5 DATES	1963-		

			(SHORT CODE)	(TYPE)
NAME	LAOS	1959-62	LAO	INTERNAL
STATUS QUO SIDE	LAOTIAN NEUTRALISTS			
NON STATUS QUO SIDE	RIGHT & LEFT FACTIONS			
PHASE 1 DATES	1957-1/59			
PHASE 2 DATES	1/59-5/24/59			
PHASE 3 DATES	5/24/59-6/24/62			
PHASE 4 DATES	6/24/62-			
NAME	LEBANON	1957-58	LEB	INTERNAL
STATUS QUO SIDE	GOVERNMENT			
NON STATUS QUO SIDE	UNITED NATIONAL FRONT			
PHASE 1 DATES	1943-6/57			
PHASE 2 DATES	6/57-5/8/58			
PHASE 3 DATES	5/8/58-10/14/58			
PHASE 4 DATES	10/14/58-			
NAME	MALAYAN EMERGENCY	1948-60	MAE	INTERNAL
STATUS QUO SIDE	GOVERNMENT			
NON STATUS QUO SIDE	MALAYAN COMMUNIST PARTY			
PHASE 1 DATES	- 3/48			
PHASE 2 DATES	3/48-6/48			
PHASE 3 DATES	6/48-7/31/60			
PHASE 4 DATES	7/31/60-			
NAME	MOROCCO-MAURITANIA	1957-70	MOM	INTERSTATE
STATUS QUO SIDE	MAURITANIA			
NON STATUS QUO SIDE	MOROCCO			
PHASE 1 DATES	1957-61			
PHASE 2 DATES	1961-63			
PHASE 5 DATES	1963-2/27/70			
PHASE S DATES	2/27/70			
NAME	MOROCCO-SPAIN	1956-	MOS	INTERSTATE
STATUS QUO SIDE	SPAIN			
NON STATUS QUO	MOROCCO			
PHASE 1 DATES	1956-8/19/57			
PHASE 2 DATES	8/19/57-11/57			
PHASE 3 DATES	11/57-3/58			
PHASE 4 DATES	3/58-			
NAME	MUSCAT & OMAN	1957-	MUS	INTERNAL
STATUS QUO SIDE	SULTANATE OF OMAN(MUSCAT & OMAN)			
NON STATUS QUO SIDE	IMAMATE OF OMAN			
PHASE 1 DATES	1955-MID 7/57			
PHASE 2 DATES	MID 7/57-7/24/57			
PHASE 3 DATES	7/24/57-8/23/57			
PHASE 4 DATES	8/23/57-			

			(SHORT CODE)	(TYPE)
NAME	NICARAGUA-COSTA RICA	1955-56	NCR	INTERSTATE
STATUS-QUO SIDE	COSTA RICA			
NON STATUS QUO SIDE	NICARAGUA			
PHASE 1 DATES	1948-1954			
PHASE 2 DATES	1954-1/11/55			
PHASE 3 DATES	1/11/55-1/20/55			
PHASE 4 DATES	1/20/55-1/9/56			
PHASE 5 DATES	1/9/56-			
NAME	NICARAGUA-HONDURAS	1957-60	NIH	INTERSTATE
STATUS QUO SIDE	HONDURAS			
NON STATUS QUO SIDE	NICARAGUA			
PHASE 1 DATES	1912-4/19/57			
PHASE 2 DATES	4/19/57-5/3/57			
PHASE 3 DATES	5/3/57-5/7/57			
PHASE 4 DATES	5/7/57-1960			
PHASE S DATES	1960			
NAME	NIGERIA	1967-70	NIB	INTERNAL
STATUS QUO SIDE	NIGERIA			
NON STATUS QUO SIDE	EASTERN REGION OF NIGERIA			
PHASE 1 DATES	1/66-5/30/67 (BIAFRA)			
PHASE 2 DATES	5/30/67-7/6/67			
PHASE 3 DATES	7/6/67-1/12/70			
PHASE 4 DATES	1/12/70-1/15/70			
PHASE 5 DATES	1/15/70-			
NAME	PALESTINE	1947-49	PAL	COLONIAL
STATUS QUO SIDE	ARAB STATES			
NON STATUS QUO SIDE	PALESTINIAN JEWS (ISRAEL)			
PHASE 1 DATES	1917-11/29/47			
PHASE 2 DATES	11/29/47-5/15/48			
PHASE 3 DATES	5/15/48-1/49			
PHASE 4 DATES	1/49-			
NAME	PANAMA	1964	PAN	INTERSTATE
STATUS QUO SIDE	USA			
NON STATUS QUO SIDE	PANAMA			
PHASE 1 DATES	- 1/9/64			
PHASE 2 DATES	1/9/64-4/3/64			
PHASE 5 DATES	4/3/64-			

NAME	PHILIPPINES (HUKS)	1946-54	PHH	INTERNAL
STATUS QUO SIDE	GOVERNMENT			
NON STATUS QUO SIDE	HUK INSURGENTS			
PHASE 1 DATES	- 4/42			
PHASE 2 DATES	4/42-5/46			
PHASE 3 DATES	5/46-5/54			
PHASE 4 DATES	5/54-			
NAME	QUEMOY-MATSU	1954-58	QUM	INTERSTATE
STATUS QUO SIDE	NATIONALIST CHINA			
NON STATUS QUO SIDE	PEOPLES REPUBLIC OF CHINA			
PHASE 2 DATES	- 9/4/54			
PHASE 3 DATES	9/4/54-10/58			
PHASE 4 DATES	10/58-			
NAME	SINAI	1956	SIN	INTERSTATE
STATUS QUO SIDE	EGYPT			
NON STATUS QUO SIDE	ISRAEL			
PHASE 2 DATES	- 10/29/56			
PHASE 3 DATES	10/29/56-11/7/56			
PHASE 4 DATES	11/7/56 -			
NAME	SOMALIA-ETHIOPIA-KENYA	1960-64	SEK	INTERSTATE
STATUS QUO SIDE	ETHIOPIA-KENYA			
NON STATUS QUO SIDE	SOMALIA			
PHASE 1 DATES	- 7/60			
PHASE 2 DATES	7/60-1/64			
PHASE 3 DATES	1/64-4/64			
PHASE 4 DATES	4/64-			
NAME	SOUTH TYROL	1957-69	STY	INTERSTATE
STATUS QUO SIDE	ITALY			
NON STATUS QUO SIDE	AUSTRIA			
PHASE 1 DATES	1957-1/30/61			
PHASE 2 DATES	1/30/61-11/30/69			
PHASE 5 DATES	11/30/69-			
NAME	SOVIET-IRAN	1945-46	SOI	INTERSTATE
STATUS QUO SIDE	IRAN			
NON STATUS QUO SIDE	SOVIET-UNION			
PHASE 1 DATES	- 8/41			
PHASE 2 DATES	8/41-8/45			
PHASE 3_1 DATES	8/26/45-12/15/45			
PHASE 4_1 DATES	12/15/45-12/10/46			
PHASE 3_2 DATES	12/10/46-12/15/46			
PHASE 4_2 DATES	12/15/46-10/22/47			

			(SHORT CODE)	(TYPE)
NAME	SUEZ	1956	SUE	INTERSTATE
STATUS QUO SIDE	EGYPT			
NON STATUS QUO SIDE	UK - FRANCE			
PHASE 1 DATES	MID-1950'S-7/56			
PHASE 2 DATES	7/56-10/31/56			
PHASE 3 DATES	10/31/56-11/7/56			
PHASE 4 DATES	11/7/56-12/23/56			
PHASE S DATES	12/23/56			
NAME	SYRIA-TURKEY	1956-57	SYT	INTERSTATE
STATUS QUO SIDE	SYRIA			
NON STATUS QUO SIDE	TURKEY(USA)			
PHASE 1 DATES	10/56-8/57			
PHASE 2 DATES	8/57-11/57			
NAME	TRIESTE	1945-54	TRI	INTERSTATE
STATUS QUO SIDE	ITALY			
NON STATUS QUO SIDE	YUGOSLAVIA			
PHASE 1 DATES	6/45-8/29/53			
PHASE 2 DATES	8/29/53-10/54			
PHASE 5 DATES	10/5/54-10/25/54			
PHASE S DATES	10/25/54-10/26/54			
NAME	VENEZUELA	1960-63	VEN	INTERNAL
STATUS QUO SIDE	GOVERNMENT			
NON STATUS QUO SIDE	TERRORIST GROUPS			
PHASE 1 DATES	1958-9/59			
PHASE 2 DATES	9/59-10/60			
PHASE 3 DATES	10/60-12/63			
PHASE 4 DATES	12/63-			
NAME	WEST IRIAN	1962-63	WIR	COLONIAL
STATUS QUO SIDE	NETHERLANDS			
NON STATUS QUO SIDE	INDONESIA			
PHASE 1 DATES	8/17/45-11/17/57			
PHASE 2 DATES	11/18/57-9/20/61			
PHASE 3 DATES	9/20/61-8/17/62			
PHASE S DATES	8/17/62			
NAME	YEMEN	1962-63	YEM	INTERNAL
STATUS QUO SIDE	ROYALISTS			
NON STATUS QUO SIDE	REPUBLICANS			
PHASE 1 DATES	- 10/62			
PHASE 2 DATES	10/62-11/62			
PHASE 3_1 DATES	11/62-8/65			
PHASE 4_1 DATES	8/65-12/66			
PHASE 3_2 DATES	12/66-3/69			
PHASE 4_2 DATES	3/69-			

CASCON II

CONFLICT-MINIMIZING POLICY MEASURES

I. Measures Promoting Arms Control

A. Remove arms left from previous conflicts

B. Promote international and great power agreements restricting arms transfers and military training and advice to the sides

C. Create demilitarized zone, or neutrally patrolled buffer zone

D. Restrict size of forces introduced into area of hostilities to those needed for defense against attack

E. Prevent a geographical spread of the conflict by restricting the sides' capacity to launch military operations far from their borders

F. Restrict the introduction of sophisticated weapons in the area

G. Promote dependence on outside sources for military needs (if conflict-minimizing)

H. Ship arms to the non-aggressive side if an invasion attempt is made, or to maintain military balance

I. Disarm potentially hostile civilians in the disputed area

II. Measures Discouraging Aggression

A. Introduce a neutral third party force in the area of conflict.

1. To prevent outside intervention
2. To prevent overt aggression by one side
3. To oversee activity in the area
4. To separate adversary forces
5. To keep the conflict non-military
6. To serve as a peacekeeping force in the area
7. To prevent the entrance of troops from neighboring countries
8. To reduce the threat of force as a means for coercion
9. To serve as a countervailing force
10. To assist forces aiding the non-aggressive side

B. Promote conflict-deterring movements of forces in nearby areas

C. Encourage non-involvement pacts by outside powers and/or allies of the sides

1. Discourage intervention (if conflict-minimizing)

2. Encourage the concept of "Spheres of Abstention"
3. Create legal and propaganda restraints on great power involvement
4. Promote neutrality

D. Increase the threat of involvement by a side's allies (but only if the result is conflict-minimizing)

E. Apply political and economic pressures

1. Increase the economic cost of hostilities
2. Restrict military and technological aid to the aggressive side and increase it to the non-aggressive side
3. Restrict trade with the aggressive side and increase it to the non-aggressive side
4. Support the concept of deterrence
5. Threaten to take further reprisals unless conflict-limiting policies are adopted by the aggressive side
6. Make peaceful preference well known to the sides

F. Promote action by international and regional organizations to forestall or condemn aggression
1. Support the victim of aggression
2. Threaten sanctions against the aggressor
3. Insulate the area of conflict

G. Guarantee existing borders
1. Through legal mechanisms
2. Through joint border patrol
3. Through neutral third party border patrols
4. Through agreements among states to abandon border claims
5. Through international agreements not to settle border conflicts by force

H. Encourage a side's desire to keep its role covert (if this is conflict-minimizing)

I. Introduce the threat of a wider war (but only if there is a high probability of conflict-minimization)

III. Measures Ensuring Equitable Treatment of the Sides

A. Settle claims according to the wishes of the population
1. Emphasize the right of self-determination
2. Utilize neutrally or jointly supervised plebiscites
3. Withold recognition from unconstitutional governments such as insurgent governments (if conflict-minimizing)
4. Encourage formation of governments that will reflect popular opinion

B. Secure humane treatment of prisoners
   1. Promote third party supervision
   2. Promote periodic third party inspection

C. Promote accommodation of interests
   1. Protect minority rights
   2. Provide international guarantees for legitimate interests of both sides
   3. Attempt to develop a formula that will meet the demands of both sides or will serve as a compromise
   4. Promote joint action by international and regional organizations and great powers for interest accommodation
   5. Provide treaty guarantees of minority or nomad rights

IV. Measures Fostering Diplomatic Settlement

A. Employ multilateral time-stretching devices
   1. Promote ceasefire and "standstill" agreements
   2. Arrange for diplomatic delays

B. Build on existing goodwill between sides by striving for rapid settlement

C. Promote peaceful multilateral procedures including conciliation, good offices, arbitration, or adjudication
   1. Pressure sides to agree to procedures for reaching settlement
   2. Offer inducements for sides to negotiate
   3. Threaten sanctions against a side unwilling to accept negotiated solutions
   4. Suggest reciprocal actions that might induce settlement

D. Pressure sides to maintain membership in international and regional organizations

E. Encourage raising the matter at international or regional organizations; encourage prompt action

F. Promote multilateral guarantees of any agreements reached, and their implementation

G. Pressure sides to stand by agreements

H. Emphasize the benefits of accommodation over the weakness associated with it

I. Make negotiation contingent on moderation or cessation of violence, e.g.,ceasefire (if conflict-minimizing)

J. Efforts to delineate border definitively

V. Measures to Establish Facts or Foster a Realistic Power Appraisal

A. Encourage sides to consider past experience

B. Encourage sides to distinguish between minor irritations and real security threats

C. Develop better understanding of the issues at stake

D. Promote third party fact-finding or observation/inspection missions

E. Caution or pressure sides to avoid precipitate action

F. Encourage sides to secure a better reading on domestic and foreign public opinion

G. Discourage either side's hope for decisive victory (if conflict-minimizing)

H. Obtain an accurate estimate of capabilities
   1. Obtain accurate intelligence on the military balance, on objectives, and on events taking place in the area
   2. Utilize reliable third-party sources of information

I. Emphasize futility of both sides continuing to fight
   1. Demonstrate the costs of continuing the conflict or starting a new one
   2. Help sides to calculate the cost-effectiveness of conflict
   3. Make clear the other side's intention to intervene under specified conditions
   4. Emphasize the threat of large-scale violence (if conflict-minimizing)
   5. Emphasize the dangers of escalation

J. Make certain that both sides are aware of all the implications of their actions

K. Increase the sides' knowledge of the nature and structure of conflicts

L. Encourage the sides to accept the inevitability of change

VI. Measures Fostering Communication and Understanding between the Sides

A. Encourage the sides to clarify their position and that of involved powers with regard to the conflict
   1. Encourage them to explain the nature and limits of their territorial objectives
   2. Encourage them to be explicit about their promises (and threats, if conflict-minimizing)

B. Create secure and rapid channels for communication, such as a "hot line"

C. Emphasize areas of common interest between the two sides
   1. Develop joint enterprises (e.g. joint companies) with shared benefits
   2. Strengthen economic ties

D. Encourage toleration of differences

E. Encourage sides to be less sensitive to past grievances

F. Encourage the sides to attempt to rectify the consequences of past errors

VII. Measures Affecting Internal Stability and Security

A. Strengthen internal security, domestic controls, and military and police forces in non-aggressive side while weakening them in the aggressive side

B. Promote internal disunity, i.e. ideological, historic, ethnic, religious, or linguistic divisions, in the aggressive side while helping to find unifying goals and increasing political and social cohesion in the non-aggressive side

C. Strengthen the militarily weak side to induce a stalemate or to increase the credibility of a counter-move (if conflict-minimizing)

D. Develop effective internal opposition to the aggressive side, and work to dissolve coalitions opposing the government of the non-aggressive side

E. Encourage accommodation to legitimate popular demands, to accept internal reforms, and to adopt policies that will increase genuine stability

F. Foster increased communication between military and political leaders to avoid credibility gap.

G. Assist a side to undertake constructive nation-building tasks
   1. Promote multilateral aid for internal political and economic development and reconstruction
   2. Promote planning and investment to stimulate internal development
   3. Create alternative outlets for energies left unemployed

H. Promote social equality in the sides by training, educating, and creating opportunities in the area's economic, social and political life

I. Encourage placing in positions of leadership those intent on peaceful resolution of conflict

J. Promote civilian control of the military in the sides (if conflict-minimizing)

VIII. Measures Reducing the Stakes in the Conflict

A. Reduce strategic importance of the disputed area

B. Create or perpetuate distractions elsewhere if conflict-minimizing

C. Reduce the need for land military bases and develop technological substitutes such as long-range sea-and air-lift

D. Isolate the conflict issue from other international, regional, and domestic disagreements (where conflict-minimizing)

E. Develop substitutes for raw materials (e.g. oil)

F. Ensure access by both sides to vital raw materials

IX. Measures Utilizing World Opinion

A. Publicize strength of world opinion behind multilateral action

B. Build opposition to a side by exposing it as the aggressor and build support for the victim of aggression

C. Utilize unanimity on an issue in an international or regional organization to generate quick action

D. Clarify the justifications for multilateral intervention in order to gain widespread acceptance

E. Utilize news media to enhance conflict-minimizing trends

X. Measures Influencing the Relationship of Interest Groups Within Each Side

A. Encourage actions that will strengthen moderate groups
1. Weaken extremist groups and leadership while strengthening moderates
2. Encourage internal divisions in extremist groups while unifying moderates
3. Provide political and economic alternatives to extremism and grant popular reforms
4. Grant financial support and sources of recruitment to moderate groups while denying them to extremist groups

B. Minimize inter-group conflicts
1. Deport dissident aliens
2. Restrict immigration to maintain unity
3. Physically separate hostile groups
4. Accommodate minority groups' desire to merge with other countries (if conflict-minimizing)
5. Disperse refugee groups, resettle them, or refuse to harbor them (if conflict-minimizing)
6. Provide economic incentives to promote emigration elsewhere
7. Promote multilateral aid to deal with internal social problems
8. Foster allegiance to country of residence

C. Support looser forms of political association
1. Promote the concept of a political federation
2. Encourage partitions (if conflict-minimizing)

D. Restrict outside aid to internal groups (if conflict-minimizing)

PART 5

CASCON II

THE RECONCILIATION OF DISAGREED CODINGS OF FACTORS

In order to provide the user with clear and accurate codings for all of the cases in the CASCON data base, it was necessary to develop a number of procedures to reconcile the various discrepancies which appeared among our experts' codings. Since the effect and influence of factors in a conflict are not always clear-cut and perceptions of them are also variable, experts often disagreed to some extent. The methods by which we reconciled such disagreements are presented here for the information of the CASCON II user.

1. Whenever the various expert codings for a given factor all fell within the "not a factor" sector and/or one or the other of the "effect" sectors, the reconciled coding for that factor was obtained by averaging the responses (with exceptions as noted below in Section 2).

Results were obtained throughout the range of the scale in Figure 3. displays the "effect" and "influence" coding of a reconciled factor in graphic form. The numbers represent codings as in the codebooks and tabulation forms; 1.0, 2.0 represent the categories 1,2, respectively and are excluded from the ordinal scale. 3.0-9.0 represent a given "effect" and "influence" ranging from "much away from violence" at the left end-point, through "no influence" in the middle, to "much toward violence" at the right end-point. These numbers, as well as the decimal gradations between them, represent reconciled coding entries as described. In order to facilitate keypunching and data storage within the CASCON II system, each of these possible codings was also assigned a corresponding "computer code" (shown above the line). It is in this form that the reconciled coding for a factor was entered into the system (the coding, however, prints it out as a digit: 1-9).

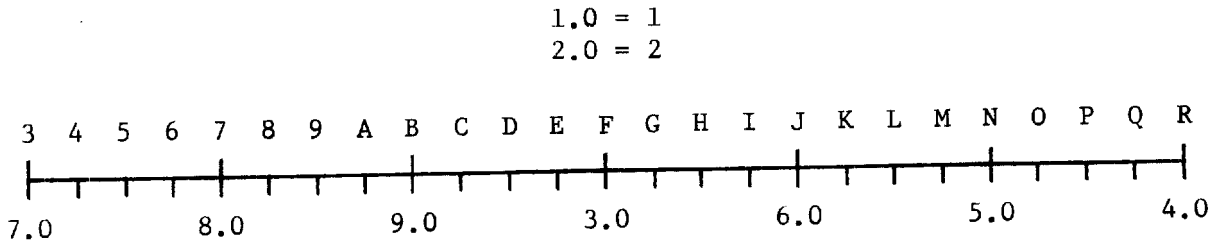

Figure 3.

2. Whenever the various codings involved "not present" codings combined with codings in one different "effect" sector, the reconciliation process had to be augmented by a set of "ground rules for reconciliation". These rules specified that:

a. Coding divergences were reconciled toward a "middle ground" coding among the coders whenever possible;

b. A majority (or even plurality) agreement on coding was weighted more heavily than deviant codings for the same factor;

c. Comments listed on forms by the coders were considered and affected reconciliation throughout;

d. When one coder obviously diverged from others to a considerable extent, his codings were less heavily weighted in general (for a measure of such deviance, refer to "Confidence Factor" below in Section 4);

e. Codings for "earlier" cases (pre-1966) by currently-serving government officials were less heavily weighted (the coding officer here seemed less likely to have personal or direct knowledge of the case, due to shifting assignments);

f. Personal idiosyncrasies of coders in checking one column rather than another (e.g., "not present" rather than "no information")were noted and considered. Idiosyncratic tendencies toward one "effect" sector rather than another were also taken into account (for measures of these factors, refer to "Codings" and "Relationships" below in Section 4).

If a consideration of these rules still did not suffice to provide the reconciled coding for such an entry, the problem was resolved as follows: if there were only two coders, one "not present" coding decreased the "influence" vector by one step (1.0) back toward a "no influence" coding (this procedure and those that follow refer to the ordinal representation assigned to the codings on the scale above).In the case of three coders, one "not present" coding decreased the influence" vector by one-half step (0.5) back toward a "no influence" coding (if the other two coders agreed on "effect" but disagreed on "influence", they were first averaged and this procedure was then applied); two "not present" codings decreased the "influence" vector by one and one-half steps (1.5) back toward a "no influence" coding, up to the point of "no influence" itself.

For the purposes of reconciliation, codings of "no information" represented a "null set" and were discounted. Also, a number of "no influence" codings equal to or greater than the number of "not present" codings completely outweighed the "no influence" codings for that factor.

3. Whenever the various codings for a given factor fell within both the "effect" sectors, (toward violence and away from violence), the reconciled coding was obtained through a discussion session among the CASCON staff. This session utilized whatever information could be brought to bear, including the "ground rules for reconciliation".

4. In order to examine and evaluate the results of experts' codings, we extracted and compiled a number of statistics based upon the tabulated codings. For each case a table was prepared in the form shown illustratively in Tables 1 and 2 following. These Tables represent imaginary cases, with 3 and 2 experts coding,respectively, for one phase only.

Table 1.

SAMPLE STATISTICS FOR 3 CODERS

FACTOR	AWAY FROM VIOLENCE (7) much	(8) some	(9) little	NOT A FACTOR (1) no info	(2) not present	(3) no influ	TOWARD VIOLENCE (6) little	(5) some	(4) much
1. Prof. 'A'	5	4	5	0	59	12	15	19	24
2. 0-7-12	1	0	1	-	45	4	3	3	13
3. Official 'B'	2	2	1	0	79	13	8	12	26
4. 0-10-3	0	0	-	-	39	1	0	2	8
5. Mister 'C'	1	10	0	18	59	7	6	22	14
6. 2-11-12	0	1	-	-	33	1	1	3	7
7. ALL	0	0	-	-	28	1	0	1	6

Table 2.

SAMPLE STATISTICS FOR 2 CODERS

FACTOR	AWAY FROM VIOLENCE (7) much	(8) some	(9) little	NOT A FACTOR (1) no info	(2) not present	(3) no influ	TOWARD VIOLENCE (6) little	(5) some	(4) much
8. Prof. 'A'	7	1	0	0	107	1	2	13	12
9.	2	0	-	-	60	0	0	1	6
10. Official 'B'	10	7	0	5	69	4		19	14
11.	$1^{A:B}$	$3^{B:A}$		$2^{A:B}$	$10^{B:A}$		$6^{A:B}$	$4^{B:A}$	

In reference to these Tables, the statistics we compiled were:

a. Codings: Rows 1, 3, 5, 8, and 10 on the Tables recorded the total number of factors within a phase entered by a coder within each category (1-9). Listed in rows 2,4, and 9, the second statistic represented the conjunction of entries of the coder above and the coder below (i.e. the number of factors which they coded similarly within the respective categories for that phase). Row 6, below the last coder on Table 1, represented the conjunction of the first coder and the last. Further conjunction statistics, arising from cases with more than three coders, were also compiled and listed for such cases. Following all of these statistics, and whenever there were more than two coders, row 7 designated "ALL" represented the conjunction of the entire group of coders for that phase. When there were two coders, row 9 alone performed the equivalent function. It was hoped that these statistics would serve to help expose a coder who was generally deviant or a coder with some particular idiosyncrasy (thus facilitating application of rules d and f.)

b. Confidence Factor: Under each coder's name, for each phase of a given conflict with three or more coders, there were listed three statistics separated by dashes, as in rows 2, 4, and 6. These statistics recorded the total number of factors for which the coder diverged from a majority agreement on coding. Referring to these statistics as "(1)-(2)-(3)", they recorded:

   (1) A coder's divergence into an opposing "effect" sector, e.g. a coding of "away from violence" rather than the majority coding of "toward violence", or vice versa;

   (2) A coder's divergence into the "not present" category and away from a given "effect" which the majority is agreed upon;

   (3) A coder's divergence into a given "effect" sector and away from the majority "not present" coding.

For the purposes of (2) and (3), the "no influence" category was considered to be a member of either "effect" sector.

Once these statistics were compiled for a coder for all phases of his case, his "confidence factor" was calculated. This factor was applicable, of course, only to cases with three or more coders. It was designed as an approximate measure of the confidence which should be placed in a coder's responses, derived from an analysis of his deviation from fellow coders. Since all of the coders were expert, whenever two or more of them agreed on a coding, we were expecially confident of its accuracy. If another coder

disagreed with such a coding we had to consider this a deviation on his part. If he deviated consistently, we reasoned that our confidence in his expertise should be lowered. Either his knowledge was insufficient or he had misinterpreted the code book for some reason. A low "confidence factor" for a coder indicated that this was indeed the case. In any event, the "confidence factor" proved a useful tool for weighting the coders and coding reconciliation in general.

The "confidence factor" was derived for a coder by doubling statistic (1) and adding to it statistics (2) and (3). The results of this were added for all phases to obtain an "adjusted deviance" measure. A suitable upper limit or "standard" for this score was determined by analysis to be one-quarter of the total number of factors possible in a case, depending on which phases were present. Thus, for cases with only Phase I present, the standard was 36; likewise, with Phases I and II, II and III, or I, II, and III present, the standards were 71, 85, or 121 respectively. The ratio of the "adjusted deviance" of a coder to the "standard" for his case was converted to a decimal and subtracted from one to obtain his "confidence factor", a decimal between 0 and 1. Using the data from Table 1, assuming that it represents Phase I, the "confidence factors" were .47, .64, and .25 for coders A, B, and C respectively.

c. Relationships: In cases which only two experts coded, as in Table 2, it was, for obvious reasons, impossible to develop a statistic comparable to the "confidence factor." In lieu of this, we derived a measure intended to point up more clearly the coders' idiosyncrasies in relation to each other. Although the value of this index was only marginal, it was felt that some such statistic might prove helpful to the reconciliation process. The "relationship" statistics were listed in row 11 below the other statistics.

    a. The leftmost pair indicated the number of factors for which one coder entered "away from violence" while the other coded "toward violence", and vice versa;

    b. The middle pair recorded the number of factors for which one coder entered "away from violence" while the other coded "not present", and vice versa.

    c. The rightmost pair showed the number of factors for which one coder entered "toward violence" while the other coded "not present", and vice versa.

Using the coders' letters in each pair, they referred to spatial orientation on the form, i.e., the left initial indicated the coder who entered the sector to the left. This can be illustrated by an example: since for the middle pair of statistics, "$_{2}$A:B$|_{10}$B:A " is listed, coder A responded "away from violence" on 2 factors B recorded "not present"; likewise, B responded "away" for 10 factors A coded "not present". (N. B. The leftmost pair differs slightly from the others in that its "letter" designations refer to opposite, rather than adjacent, sectors.)

All of these statistics helped to provide a sounder basis for the judgments which were necessary in reconciling disagreed codings.

FIGURE 4. ORIGINAL 27 CASES IN CASCON I

ALGERIA	1954-62
ALGERIA - MOROCCO	1962-63
ANGOLA	1961
BAY OF PIGS	1961
BOLIVIA	1967
CUBA	1952-59
CYPRUS (ENOSIS)	1954-59
DOMINICAN REPUBLIC	1965
GREEK INSURGENCY	1944-49
GUATEMALA	1954
INDIA -CHINA BORDER	1954-62
INDONESIAN - MALAYSIAN CONFRONTATION	1963-65
INDONESIAN WAR OF INDEPENDENCE	1945-49
IRAQ (KURDS)	1958-63
KASHMIR	1947-49
KUWAIT - IRAQ	1961-63
LEBANON	1957-58
MALAYAN EMERGENCY	1948-60
PHILIPPINES (HUKS)	1946-54
QUEMOY-MATSU	1954-58
SINAI	1956
SOMALIA -ETHIOPIA- KENYA	1960-64
SOVIET - IRAN	1945-46
SUEZ	1956
VENEZUELA	1960-63
WEST IRIAN	1957-62
YEMEN	1962-69

FIGURE 5 . 25 NEW CASES ADDED TO CASCON II

ADEN (SOUTH YEMEN)	1963-67
ARAB - ISRAELI WAR	1967
BAHRAIN	1970
CONGO (KATANGA)	1960-63
CYPRUS (COMMUNAL)	1963-
DOMINICAN REPUBLIC - HAITI	1963
ECUADOR - USA	1963-
EL SALVADOR - HONDURAS	1969-
GHANA - UPPER VOLTA	1964-66
GUINEA - IVORY COAST	1966-67
GUINEA - PORTUGUESE GUINEA	1970
GUYANA - VENEZUELA	1970
INDIA - PAKISTAN	1965-66
LAOS	1959-62
MOROCCO - MAURITANIA	1957-70
MOROCCO - SPAIN	1956-
MUSCAT & OMAN	1957-
NICARAGUA - COSTA RICA	1955-56
NICARAGUA - HONDURAS	1957-60
NIGERIA (BIAFRA)	1967-70
PALESTINE	1947-49
PANAMA	1964
SOUTH TYROL	1957-69
SYRIA-TURKEY	1956-57
TRIESTE	1945-54