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Hub-4 Event99 General Guidelines

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1 INTRODUCTION

The goal of the Event99 "templette" task is to provide event-level indexing into news stories, including news wire, radio, and television sources. The purpose of the templette is to capture information on certain newsworthy classes of events, e.g., natural disasters, deaths, bombings, elections, financial fluctuations. Rather than requiring the use of any one particular templette in the evaluation, the intent is to allow any combination of defined templettes to be extracted from a corpus.

The templettes are designed to require minimal special rules for filling and scoring the extracted events. The overall task guidelines and general fill rules are captured in the body of this document; these apply to all templettes. Guidelines that are particular to individual templettes are found in the appendices. The templette structure consists of just a few slots (attributes), representing basic information such as main event participants, event outcome, time and location. The temporal (DATE) and locative (LOCATION) slots are common to all templettes and are therefore defined primarily in the body of this document rather than in the appendices.

The slot fills consist of excerpts (strings) from the text with pointers (indices) back into the original source material. In reality, slot fills are strings whose underlying representation consists of pointers into the original source document, indicating the begin point and end point of the relevant string fill information. Using these pointers, someone skimming sources for information about particular classes of events could replay relevant segments of a news broadcast. The templette is designed primarily to support such an event-based browsing task or search task, but together with its associated string fills, it also provides a kind of "indicative" summarization, i.e., a summary that indicates the relevance of a particular story to a templette's domain of interest.

Subsuming the *templette* structure is the *template* structure, which serves to group relevant events together that are reported in a single story. (For example, a single news story could provide news on both a natural disaster event and a death event.) The general form of the output of this task is a simple, two-level structure, with the template-level structure pointing to one or more templette-level structures. The template contains slots for identifying the news story and any templettes that come from that story.

Ground-truth output for the templette task is in the form of manually-produced *reference* templates and templettes. The reference may also be referred to as the *answer key.* There is an automatic scoring program that aligns the system-generated *hypothesis* with the reference and scores the hypothesis. Later sections of this document contain explanations of the annotation standard in use for Event99. Some information on scoring is contained in this document; more complete information on scoring is provided separately in the document titled "HUB-4 Templette Task Scoring Procedure."

2 GENERAL INFORMATION ON EVENT99 ANNOTATION STANDARD

2.1 Guidelines that Pertain to Both Reference and Hypothesis Annotations

The following conventions apply to both the reference and the hypothesis:

- The slot fill appears to the right of the slot label, separated from the label by at least one space.

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- There is one template slot (EVENT) that permits multiple slot fills; each fill should appear on a separate line. (The first fill appears on the same line as the slot label.)
- If there is no fill for a slot, it is permissible to omit the line from the output altogether.
- Each string fill appears in the templette accompanied by its *extent* (pair of offset values). Both the string and the extent may play roles in scoring. The scoring mechanism can give credit for identifying the approximate region in which the correct fill is found, independent of the score assigned to the correctness of transcription. The treatment of extent as a separate component of the scoring is done in recognition of the fact that the hypothesis fill may have been extracted from an errorful speech transcript.

2.2 Features Reserved for Reference Annotations

The templette mark-up is designed to be a loose or forgiving mark-up, both in order to avoid complex fill rules and to provide leeway given that the hypothesis represents the output of a speech recognizer. Thus, to facilitate consistency in the reference output and to simplify scoring of the system-generated *hypothesis* against the reference, the Event99 committee defined the reference annotation for slot fills to have the following special characteristics:

- *Alternatives*: The reference may contain alternative slot fills. The notation indicating an alternative is a forward slash at the beginning of a line containing a fill. (The first of a list of alternatives is *not* preceded by a forward slash.) The hypothesis is expected to have at most one slot fill per slot; the slash notation is not for use in the hypothesis. There are several different situations that will occasion the use of alternatives in the reference:

  * If something that qualifies as a slot fill is mentioned more than once (either by repetition of the same string or by use of some synonymous expression or paraphrase) in the news story, the reference will contain an alternative for each coreferring expression that is not a pronoun. This is done in order to avoid having to create extraction rules for including only the "best" string in the hypothesis. This makes reference generation more burdensome, but provides a forgiving scoring strategy.

  * In accordance with slot-specific guidelines, the reference may contain alternatives for fills that provide information of differing degrees of specificity, information that captures events at different points in a causal chain, etc. For example, "torrential rains" can cause "mudslides" so each expression would be an alternative fill for the DISASTER slot in the NATURAL_DISASTER templette.

  * If the reference annotator is uncertain whether the story contains *any* suitable slot fills for a given slot, she/he may use the alternative notation to indicate *optionality* of the fill. Optionality is indicated by preceding the first fill (or only fill, if there are no coreferring expressions) with a forward slash.

- *Minimal Fills*: In accordance with slot-specific guidelines, slot fills may consist of names, nouns, noun phrases, prepositional phrases, adjectives, adjective phrases, verbs and/or clauses. In the case of most multiword fills, the reference will include notation of a *minimal* fill, which is a portion of the *maximal* fill. Where the reference does not explicitly indicate a minimal fill, the scoring software will consider the minimal fill to be equivalent to the maximal fill. The minimal fill defines what is required, and the maximal fill defines what is allowed. The minimal fill is indicated by square brackets within the maximal fill. (In some cases, there will be more than one minimal fill per maximal fill; in such cases, each minimal fill is scored as an alternative.) The square bracket notation is not to be used in the hypothesis. Further guidelines for maximal fills as well as for minimal fills can be found in later sections of this document.

3 GUIDELINES FOR TOP-LEVEL TEMPLATE

3.1 Syntax

The syntax for the top-level structure, which is named TEMPLATE, is as follows:

```
<TEMPLATE-n-1> :=
   DOC_NR:      [text] ^
   EVENT:       <EVENT_TYPE-n-m> *
   COMMENT:     "COMMENT" -
```

One of these structures is to be produced for each story that contains a reportable event (see later section re relevance criteria for event templettes). In the above definition, *[text]*^ is the (unique) document identifier, and *n* is a copy of

that document identifier; it is used for grouping together the template and templette(s) for a given story. Note the constant "1" in the first line; it reflects the fact that there is just one template structure per story. The *EVENT_TYPE* portion of the EVENT slot fill indicates the type of event, such as NATURAL_DISASTER or DEATH. The variable *m* is a one-up number assigned to each instance of a templette of the same *EVENT-TYPE*. The COMMENT slot is primarily intended for use in the reference; *COMMENT* records any comments the annotator wants to make. The COMMENT slot is disregarded in scoring.

The BNF symbols used to indicate the valency of the slot fill are as follows: ^ (exactly one), - (zero or one), + (one or more), and * (zero or more). The EVENT slot permits the most options, including zero fills (e.g., for a story that contains no reportable events, one fill, or multiple fills. The DOC_NR slot is a *required* slot, i.e., it must have a fill. The EVENT and COMMENT slots are both *optional*, i.e., a fill is not required. As was noted in the previous section, the reference may contain alternative slot fills.

4 RELEVANCE CRITERIA FOR TEMPLETTES

An event is basically reportable (i.e., a templette structure should be generated) if it meets all of the following criteria:

- The news report of the event contains sufficient direct information to fill all the slots that are identified as 'required' in the event-specific templette guidelines. For example, both the NATURAL_DISASTER and DEATH templettes have two event-specific slots that must be filled by the reference templette for each relevant event.
- The news report of the event contains sufficient indirect information to indicate that the event meets other relevance criteria imposed by the individual, event-specific guidelines. By 'indirect', we mean that the evidence is given in a way that cannot be expressed as a slot fill, according to the slot-specific fill rules. For example, the natural disaster templette requires that a report provide at least indirect evidence of the amount of damage, the number of casualties, and the time of the event. The death templette does not specify any such additional, event-level relevance criteria.
- The event is asserted to be real, not imagined, predicted, or possible. Therefore, for example, the possible future collision of an asteroid with Earth is not a reportable natural disaster.

In the case where a news story reports a set of potentially relevant events that are linked together in some fashion -- e.g., several deaths linked to the same cause, or several causally-related natural disasters -- a decision must be made as to whether to create a single templette or multiple templettes. Currently, the criteria for making such decisions are defined at the level of the event-specific guidelines.

4.1 Borderline Relevance

In cases of borderline event relevance, the OBJECT_STATUS slot in the reference templette will be filled with "OPTIONAL." The fact that an event templette is indicated as being optional means that the event content of the templette will be scored if the event appears in the hypothesis and will not be scored if it does not appear in the hypothesis.

As an example, the following story from PRI reports a conglomeration of natural and human disasters that occurred over a vague period of time; this story would be represented as an optional NATURAL_DISASTER templette:

> In a rare admission, North Korea says its grain supplies could run out within two weeks. North Korea told the international red cross and red crescent society, stocks would soon be exhausted, even if rations were halved. The red cross' Stan svedland. What makes the situation more serious now is the shortage of food is coming earlier during the springtime than last year. I think last year the same thing happened in June.
> <TURN>
> The problem is blamed on drought, floods and the inefficiencies of the country's communist system.

```
<TEMPLATE-PRI19980302.2000.1958-1) :=
   DOC_NR:     PRI19980302.2000.1958
   EVENT:      <NATURAL_DISASTER-PRI19980302.2000.1958-1>
   COMMENT:    Optional event, food shortages blamed on floods, drought,
   and the inefficiencies of the country's communist system.
<NATURAL_DISASTER-PRI19980302.2000.1958-1>
   DISASTER:   drought
```

```
                / floods
   LOCATION:    North Korea
                / North Korea
                / the [country]
   DATE:        earlier during the [springtime] than last year
   OBJECT_STATUS: OPTIONAL
```

4.2 Subsidiary Events

In certain cases, the main topic of an article or story is focused on one type of event (e.g., a natural disaster) but there are subsidiary events related to the main event mentioned in the course of the article, as in the following excerpt:

<TEXT>
the biggest winter storm of the season has now moved north from florida to the mid-atlantic and new england states. this is very much an el nino-inspired storm. it has caused 20 deaths so far. tonight abc's antonio mora is on the new jersey shore.
<TURN>
in the eastern u.s. it was almost impossible to get away from the deadly storm. many of those killed died in traffic accidents like this one in louisville, kentucky. the storm's reach was enormous. it blanketed cincinnati, ohio, with snow, just as it sent waves crashing over the boardwalk in chatham, massachusetts, 800 miles away. near roanoke, virgina, a raging river washed away train tracks, sending a freight train plunging into the water. the powerful surf collapsed houses in virginia beach and flooded homes from maryland to new york. in bradley beach, new jersey, crews fought to save beaches from more heavy erosion. and up the coast in seabright, residents kept up a two-day struggle against danger from two sides....
</TURN>

This story will generate both a NATURAL_DISASTER templette and a DEATH templette. Both of these have locations associated with them, but the set of alternative LOCATION fills in the reference will be somewhat different in each of the two templettes -- some deaths are associated with one specific location ("louisville, kentucky"), and the rest can only be associated with the general location of the storm (e.g., "the eastern u.s."); the location of the storm includes not only the locations of the deaths but other locations that are specifically associated with the storm (e.g., "Virginia Beach").

```
<TEMPLATE-ABC19980205.1830.0504-1> :=
   DOC_NR:      ABC19980205.1830.0504
   EVENT:       <NATURAL_DISASTER-ABC19980205.1830.0504-1>
                <DEATH-ABC19980205.1830.0504-1>
<NATURAL_DISASTER-ABC19980205.1830.0504-1> :=
   DISASTER:    the biggest winter [storm] of the season
                / an el nino-inspired [storm]
                / the deadly [storm]
                / the [storm]
                / [snow]
                / [waves]
                / a raging [river]
                / the powerful [surf]
                / more heavy [erosion]
   NUMBER_DEAD:       [20 deaths]
   LOCATION:    from [florida] to the [mid-atlantic] and [new england]
   [states]
                / the new jersey [shore]
                / the eastern [u.s.]
                / [louisville], [kentucky]
                / [cincinnati], [ohio]
                / the [boardwalk] in [chatham], [massachusetts], 800 miles
   away
                / near [roanoke], [virgina]
```

```
                / [virginia beach]
                / from [maryland] to [new york]
                / [bradley beach], [new jersey]
                / up the coast in [seabright]
   DATE:        [now]
                / [tonight]
<DEATH-ABC19980205.1830.0504-1>  :=
   DECEASED:    20 [deaths]
                / many of [those] killed
   MANNER_OF_DEATH:  the biggest winter [storm] of the season
                     / an el nino-inspired [storm]
                     / the deadly [storm]
                     / died in traffic [accidents] like this one in
   louisville, kentucky
                     / the [storm]
   LOCATION:    [louisville], [kentucky]
                / from [florida] to the [mid-atlantic] and [new england]
   [states]
                / the eastern [u.s].
```

5 GUIDELINES FOR TEMPLETTE SLOTS

The individual event templettes are defined separately in the appendices, but the style of the templette definitions is uniform. Some templettes share similarly named slots. Identically named slots across templettes are defined the same way in each templette. Similarly named slots, however, have different definitions for different templettes. The reasoning behind this can be seen from examples. In the natural disaster templette, the extent of the destruction is the focus; thus, there are slots such as NUMBER_DEAD, NUMBER_INJURED, and AMOUNT_DAMAGE that require quantifiers in the fills. On the other hand, in the bombing templette, the focus is on the individual incident; as a result, the DEAD, INJURED, and DAMAGE slots require qualititative fills such as names or descriptions of the affected persons and property.

5.1 General Fill Guidelines

Fills for slots in a templette can be taken from the document's headline or body. Fills are not to be extracted from any header fields other than from the headline.

The templette fill rules diverge from the Named Entity guidelines (MUC-7 and/or HUB-4) in a number of different ways, mainly due to the greater amount of contextual processing expected for the templette task than for the Named Entity annotation task.

The expected *content* of the templette slot fills is identified in later sections concerning DATE and LOCATION and in the appendices (for event-specific templette slots). The section (and subsections) below identify the *form* that the slot fills will have in the reference.

5.2 Minimal and Maximal Fills

The reference answer will be specified in terms of a maximal fill and a minimal fill. As stated earlier, the minimal fill defines what is required, and the maximal fill defines what is allowed -- any hypothesis fill overlapping the minimal fill in extent and not extending beyond the maximal fill will get full credit for the extent component of the scoring. Full credit for the content component of the score can be achieved by any substring of the hypothesized fill matching a minimal fill.

Slot fills are defined primarily in semantic terms, and therefore they may correspond to one or more grammatical or syntactic types: proper names, noun phrases, nouns, prepositional phrases, prenominal modifiers, quantifiers, adjectival phrases, verbs, and/or clauses. Maximal fills are syntactically defined, while minimal fills may not constitute syntactic phrases (e.g., the head noun of an NP may be defined as the minimal fill for a particular slot)

All fills in the reference and hypothesis should exclude any final (boundary) punctuation, e.g., a sentence-final period following a clause fill or a conjunction marker such as a comma following a noun phrase fill. There may be transcription errors such as misplaced periods or other potential phrase-final punctuation; if such punctuation

interrupts a candidate slot fill, it should be included in the extracted fill.

5.2.1 Maximal fills

Guidelines defining the extent of maximal fills of various types allowed for slot fills are given below:

- *Noun phrase*: The maximal noun phrase fill is defined as the most generous NP surrounding the head of the expected slot fill. The most generous NP includes all prenominal modifiers as well as all postnominal modifiers up to, but not including, boundary punctuation. Postnominal modifiers include prepositional phrases, unless it is very clear that these do not modify the noun.
- *Clause*: The maximal clause is defined as the most generous clause. The most generous clause includes all arguments, but excludes coordinate clauses and final (boundary) punctuation.
- *Prepositional phrase*: Where prepositions carry key information, as in certain time expressions ("*before* 10:00 Friday"), the prepositional phrase is the maximal fill. The maximal prepositional phrase consists of the preposition, any prepositional modifiers ("*quite* near the street") and the maximal noun phrase.
- *Prenominal modifier*: For adjectival and participial prenominal modifiers that carry key information, the maximal fill is just the modifier itself. For example, in the phrase "the murdered officials," the participial modifier "murdered" would be the maximal fill for the MANNER_OF_DEATH slot in the DEATH templette.

5.2.2 Minimal fills

The minimal fill will be the portion of the maximal fill that is essential. The minimal fill is generally the syntactic head of the phrase. Note that the minimal fill may not capture the full semantics associated with the slot (e.g., "fire" is the minimal fill from the phrase, "the massive fire"). However, the minimal fill meets the goal of indexing into the right place in the transcription and providing at least an indicative response to the question posed by the slot.

In some cases where the syntactic head would provide an inferior slot fill, a different or an alternative minimal fill may be defined. Such cases are described in later sections of this document.

In the remainder of this document, the minimal fill is indicated in square brackets and **bold-face type**. For example, in the following:

The inferno killed 10 people. The massive fire devastated the area.

the two noun phrases describing the fire will be marked in the reference DEATH templette as the maximal alternative fills, and the head noun of each phrase will be marked as the minimal alternative fills.

```
MANNER_OF_DEATH: The [inferno]
                 / The massive [fire]
```

The maximal fill types and their corresponding minimal fill descriptions are provided below:

- *Noun phrases and prepositional phrases*: The minimal fill is typically a named entity or content-bearing head noun. In the simplest case, such as when the maximal fill is an unmodified named entity, the minimal and maximal fills are the same. In such cases, the minimal fill will not usually be explicitly marked in the reference; instead, it will be supplied by default by the scoring software. For simple noun phrases consisting of a determiner such as "the" or "a" and a head noun, the minimal fill differs from the maximal fill only by exclusion of the determiner.
- *Clauses*: The minimal fill is often the verbal form plus any tightly associated objects or predicate adjectives that are needed. In the following examples, where an entire clause is the maximal fill, the different types of verb phrases illustrate different conditions for minimal fills:

  ```
  MANNER_OF_DEATH: They [killed themselves]
  MANNER_OF_DEATH: They [killed themselves] in the morning
  MANNER_OF_DEATH: They [killed] the presidential candidate
  ```

- *Prenominal modifiers*: It is anticipated that the minimal fill will be the same as the maximal fill. Note that in some cases the prenominal modifier is the only occurrence of the information as in the following example.

  <TEXT>
  <TURN>
  Bolivian officials say the death toll hasries risen to 60 in a mudslide at a jungle gold mining town. Only 21

bodies have been recovered from the slide, caused by heavy rains that are also blamed on El Nino.
</TEXT>

```
<NATURAL_DISASTER-PRI19980212.2000.0262-1> :=
    DISASTER: "the [slide]"
            / "heavy [rains]"
            / "[El Nino]"
            / "a [mudslide] at a jungle gold mining town"
    LOCATION: "a jungle gold mining [town]"
            / "[Bolivian]"
    NUMBER_DEAD: "[60]"
```

A given string may appear as a fill for more than one slot. It is possible in such cases that the slots will have the same maximal fill but different minimal fills. For example, if the maximal fill in the DECEASED slot (DEATH templette) and NUMBER_DEAD slot (NATURAL_DISASTER templette) is "two women from the village", the minimal fill for the DECEASED slot (which *identifies* the victims) would be "women", and the minimal fill for the NUMBER_DEAD slot (which *quantifies* the victims) would be "two women".

5.3 Preferred Fills

In the case where both a noun phrase and a verb phrase carry meaning that could serve as a slot fill, the noun phrase is to be used rather than the verb phrase. Consider the following example:

Fires are burning out of control.

Since "burning" conveys the nature of the disaster, that verb (participle) could appear as the minimal fill in the DISASTER slot; in such a case, the whole clause could be extracted as the maximal fill. However, the simple noun phrase "Fires" also indicates the answer to the question implied by the DISASTER slot, and since it is a noun phrase, it will be the only slot fill in the reference extracted from this sentence.

5.4 Rules Relating to Noun Phrases

5.4.1 Proper names

For names, the maximal NP is the entire NP whose head is the name, and the minimal fill is just the name:

the crash that killed Princess **[Diana]**

"Princess Diana" would be the correct maximal fill, e.g., for the DECEASED slot in the DEATH templette. Note the title is not considered to be part of the name per se.

In the following example that pertains to the BOMBING event:

[Theodore Kaczynski], the **[Unabomber]**, was charged with a series of bombings that took place throughout the eighties and nineties.

the maximal NP for the reference fill for the PERPETRATOR slot would be the entire NP, "Theodore Kaczynski, the Unabomber." However, since there are two named entities in the maximal NP, either one would be a valid minimal fill. This means that the hypothesis would be scored as correct for extracting either "Theodore Kaczynski" or "Unabomber" (or the whole). Thus, when the maximal NP contains several names, there will be alternative minimal strings.

5.4.2 Conjoined NPs

Where the slot fill consists of conjoined noun phrases, the entire conjunction will be used as the maximal slot fill, including all pre- and postmodifiers. A minimal fill for each conjunct will be marked in the reference. For example, for the sentence,

The storm hit New York and New Jersey.

LOCATION:[**New York**] and [**New Jersey**]

the maximal fill for the LOCATION slot would be the conjoined NP and each of the two named entities would constitute a minimal fill. Similarly, in the maximal noun phrase:

a [**husband]**, [**wife]**, and their two-year old [**daughter]**

the words in brackets identify the minimal fill for each of the three common noun phrases.

The set of minimal fills associated with a conjoined expression will be scored as alternatives; that is, a hypothesis fill that matches one minimal fill is enough for credit for the slot fill, and a hypothesis fill that matches more than one minimal fill does not increase the amount of credit received.

A conjoined multi-name expression, in which there is elision of the head of one conjunct, is treated the same as in the examples above:

[North] and **[South America]**
President and Mrs. **[Reagan]**
[John] and **[Sue Anderson]**

5.4.3 Embedded NPs

The maximal coreferential NP is the reference fill in the case of an NP embedded in a vacuous type expression, e.g., "the area of Washington", "the group of children", "the type of chemical", "all of the rebels". The semantically impoverished heads should be treated as if they were prenominal modifiers to the semantically key noun, which is the head of the modifying prepositional phrase. For example, for

LOCATION: the area of [**Santa Cruz**]

the minimal fill is just the noun "Santa Cruz".

However, for type expressions that give useful information about the key embedded NP, such as "the province of Quebec", "the city of Boston" or "the state of California", the type is given as an alternative minimal fill. For example, in

LOCATION: the [**city**] of [**Tung Shang**]
LOCATION: [**San Diego**] and [**Orange**] [**counties**]

there are alternative minimal fills. In the latter example, the proper name "Orange" is embedded and in a premodifier position; if there were no elision in that example, i.e., if it were "San Diego County and Orange County," there would be no embedded NPs and therefore there would be just two minimal fills, one for each conjunct (proper name).

5.5 Rules Relating to Verb Elements and Clauses

5.5.1 Information-bearing verbs + arguments

When the slot fill is specified by including the verb or a predicate adjective, then the hypothesis may extract that verb together with those arguments that are critical to a correct understanding of the meaning of the verb. Thus, in the following example that pertains to the DEATH event:

MANNER_OF_DEATH: Henry Commager [**died]** yesterday.

"died" would be the correct minimal fill for the MANNER_OF_DEATH slot. The maximal fill in the reference would be the entire clause.

The minimal fill for a verb-containing fill can be the content-bearing verb plus any meaning-altering arguments that are essential, for example:

MANNER_OF_DEATH: Nearly 2300 people [**killed themselves]** yesterday

MANNER_OF_DEATH is "killed themselves", since "themselves" is a critical meaning-bearing element that changes the underlying meaning of "kill". Note that auxiliaries and empty verbs (make, do, etc.) are NOT content-bearing verbs. The maximal fill will be the entire clause. (Contrast that example with the "Fires are burning out of control" example described in the earlier section on preferred fills.)

5.5.2 Modal/Auxiliary + information-bearing verbs

When filling slots with verbal descriptions as above, modal and auxiliary verbs are not included in the minimal fill. Thus, in the example below that pertains to the BOMBING event:

INJURY: Emily Lyons was [**maimed]** in the Atlanta bombing

"maimed" is the correct minimal fill for the INJURY slot; the maximal fill is the entire clause (sentence), excluding final punctuation.

5.5.3 Copulas + predicate adjectives

Where the slot fill is a predicate adjective, the adjective is the minimal fill and the entire clause the maximal fill:

MANNER_OF_DEATH: The perpetrator was [**dead**]

5.6 Rules Relating to Quantified Expressions

When a quantified expression is required as a slot fill, e.g., for AMOUNT_DAMAGE or NUMBER_DEAD in the NATURAL_DISASTER templette, then the minimal fill consists of the quantifying expression and the head noun. If there is no explicit quantifying expression, as in the case of an indefinite NP, the minimal fill is simply the meaning-bearing head of the NP. The maximal fill is the maximal NP containing the quantified expression. For the NP shown in the example below of the NUMBER_INJURED slot (NATURAL_DISASTER templette), the maximal fill is the entire conjoined NP, and the minimal NP elements are shown in brackets.

NUMBER_INJURED: [**several men**], a [**woman**], and [**two children**]

Here "several" and "two" are quantifying expressions, while the head noun "woman" is used as the minimal NP where there is no quantification. Sometimes there is only a quantifying expression as in the "The dead numbered 40," where we have "40" as both minimal and maximal fill. Note that when there is a general designation, e.g., "40 people", and some subsequent subset description, e.g., "20 of them", the reference will treat these as alternatives.

6 GUIDELINES THAT PERTAIN TO DATE AND LOCATION SLOTS

The maximal fill for DATE and LOCATION is usually the noun phrase referring to the date or location. In some cases, described below, the maximal fill can be a prepositional phrase or adverbial phrase.

Both relative and absolute expressions are extractable for DATE and LOCATION slots. The fill can be a name, a descriptive phrase, or any coreferring expression within the context of the report.

[**Edinburgh]**
the capital [**city]** of **[Scotland]**
the [**city]**
[**Wednesday]**
[**yesterday]**
the [**day]** after the bombing

6.1 Definition of Date

The DATE slot captures temporal information. The salient feature of extractable temporal expressions is that they can be anchored on a timeline. Unanchored durations, for example, are not extracted. (For anchoring requirements, see section 6.3.3.)

It is assumed that each story has some reporting date that is associated with the report itself and serves as a default date for reported events. For the purposes of the templette task, a DATE slot fill should be extracted only when an appropriate date expression occurs in the headline or body of the report.

Except for the additional allowance of relative expressions (discussed in greater detail below), the HUB-4 Named Entity guidelines for DATE also apply to the definition of the templette DATE slot. For example, holidays that are referenced by name (“All Saints’ Day”) can act as fills in the DATE slot.

6.2 Definition of Location

The LOCATION slot is to be filled with the name or descriptor of a politically or geographically defined location indicating where the event happened. The same place names that constitute a LOCATION Named Entity under HUB-4 are also extractable as LOCATION slot fills for this templette task. The two notable exceptions to this are imaginary locations, which are not extractable because this task focuses on actual events, and tourist attractions, which are considered allowable LOCATION fills.

As mentioned above and discussed in more detail below, relative locations as well as descriptive phrases are also extractable for the LOCATION slot.

6.3 Absolute and Relative Expressions

6.3.1 Absolute and Relative Dates

An absolute temporal expression indicates a specific segment of time on its own. Examples of absolute time expressions include “Monday,” “autumn,” “fourth quarter,” “1995,” “1980s,” and “the 20th century.”

A relative temporal expression indicates a date relative to the date of the document (“yesterday,” “today”), a date

relative to the narrative time of the document (“the next day”), or a portion of a temporal unit relative to the given temporal unit (“morning” as the initial part of a specified day).

Relative temporal expressions often contain a deictic marker followed by a time unit, such as “last month” or “next year”. If a numeral is included in expressions of this type, it falls within the scope of the maximal fill (“last two months”). More than one deictic marker, such as “early this year” and “earlier this month,” can also fall within the scope of the maximal fill. In MUC-7 Named Entity markup, relative times and dates were marked, but not in HUB-4 Named Entity markup.

6.3.2 Absolute and Relative Locations

An absolute location is defined solely on the basis of the expression in the fill (“Mississippi,” “Ural Mountains,” “Germany”), whereas a relative location is defined relative to some absolute location (30 miles due South of Martha’s Vineyard,” “across the river from West Point”), some other location in the narrative (“the next county”), or the locale of the report itself (“within a mile of here”). Relative locations were not marked in any of the MUC-7 tasks nor in the HUB-4 Named Entity task.

6.3.3 Anchoring in Time and Space

Unanchored expressions are not allowable slot fills. For example, the following would not be extractable:

since the beginning of arms control negotiations
an area the size of Rhode Island

On the other hand, if a phrase is anchored in time or place by the information within the maximal string, it can constitute a fill. For example, the phrase:

the [**morning]** after the July 17 disaster,

can be a fill for the DATE slot. This restriction on where the anchoring information occurs was not placed on MUC-7 systems although it should have been due to the lower level of processing required for the Named Entity task. It is being used here because of the leniency of these templettes versus the MUC scenarios.

Likewise, for LOCATION, the phrase

two [**counties**] more than 100 kilometers northwest of Beijing

is geographically anchored within the maximal string and can be a fill for the LOCATION slot.

6.3.4 Descriptive Relative Expressions

Descriptive expressions are allowable slot fills as long as they constitute a valid relative expression in the context of the text (as described above) or are appropriately anchored (also discussed above). Descriptors for locations were not used in any portion of the MUC-7 or HUB-4 Named Entity task.

last [**week]**
the last few [**weeks]**
this [**century]**
this [**island]**
[**recent**]
the final [**day]** of the annual pilgrimage
a [**week]** after killer tornadoes ripped through central florida

It is possible that a descriptor can be given for a location rather than a name that will be found on a map or in a gazetteer. As long as the location can be anchored geographically from *normal world knowledg*e, the descriptor can be a fill for the LOCATION slot. The maximal fill will be the entire phrase and the minimal fill will be the head noun.

that beautiful [**city]** on the Seine
the [**city]** where he left his heart according to the song
Iron Curtain [**countries]**
a mountainous area in the northwestern part of the [**country**]

In cases where the descriptive phrase includes a name and the name also designates the location of the reported event, the name will be given as an alternative minimal fill in the reference.

the [**plain]** outside [**Mecca**]

the [**tunnel]** in [**Paris**]

Sub-national regions referenced only by compass-point modifiers may be slot fills, such as "the South," the "mid-West," or "the Southwest region" because the context of the narrative disambiguates the reference. Compass-point modifiers alone were disallowed as locations in MUC-7 and HUB-4 Named Entity markup because relative locations were not marked.

6.3.5 Non-Extractable Relative Expressions

At times, there will be temporal-like expressions or locative-like expressions that must be distinguished from substantive slot fills. For example, "now" and "here" can both be used in non-specific ways and can even be vacuous of any reference to time or place:

Now, please don't put words in my mouth.
Here now, what do you think you're doing?
What we can say here is that things are a mess.

These will not be acceptable slot fills in such cases.

However, in many contexts they will constitute valid slot fills. For example:

The biggest winter storm of the season has now moved north into New England.
Forest fires here are threatening thousands of acres of rain forest.

In the MUC-7 and HUB-4 Named Entity tasks, these were never markable.

6.4 Form of DATE and LOCATION Fills

In general, the maximal fill for DATE and LOCATION is just the noun phrase referring to the date or location. For example, when an event is reported as happening "in New Brunswick in 1902", then the LOCATION slot fill would be "New Brunswick" (without "in"); the DATE slot fill would be "1902" (also without "in"). However, other phrasal categories are allowed in specific circumstances, described below.

6.4.1 Embedded Noun Phrases in DATE and LOCATION

For relative expressions involving a noun phrase embedded in an adverbial phrase, the maximal fill will include the entire adverbial phrase and the minimal fill will contain only the head noun.

10 **[years]** ago
four [**months]** earlier
five [**miles]** away

6.4.2 Approximation

Words or phrases modifying the expressions to show approximation (such as "around," "about," or "near") will be within the scope of the maximal fill, but the minimal fill will only include the actual temporal or locative expression itself.

around the [**4th of May]**
shortly after the [**4th of May]**
near [**Minsk]**
just north of [**Minsk]**

6.4.3 Range Expressions

Prepositions will be included in the maximal slot fill when the preposition changes the meaning of the phrase, as can happen in relative date or location expressions. The maximal fill is thus the prepositional phrase (including any modifiers of the prepositional phrase); the minimal fill is the head noun of the embedded noun phrase.

since [**1990]**
since the [**new year]**

Other such meaning-changing prepositions in temporal phrases include "through," "during," "after," "before," "up to," "from," "within," and "by." These all can be interpreted as expressing a range of time on a timeline with the narrative present being the missing endpoint.

For range expressions designating a starting and an endpoint, the entire expression will be the maximal fill, including the prepositions since they have semantic relevance. The minimal fill will consist of the head nouns of

each prepositional phrase because they are the endpoints of the range and will be scored as alternative fills.

from [**Arkansas]** to **[Illinois]**
from [**Saturday]** through **[Monday]**

In the MUC-7 Named Entity task, we marked the maximal fills in these expressions, and in the HUB-4 Named Entity task we marked the minimal fills. Since the Event99 task is an indexing task, we are following the more lenient rule of the two.

6.4.4 Contiguous Specification

When a location fill and a time fill occur as successive prepositional phrases, as in

in New Brunswick in 1902

these should be interpreted as independent adverbial phrases, so that one is not included as part of the maximal NP of the other and two separate slot fills are generated for LOCATION and DATE.

Compound expressions in which contained and containing place names are separated by a comma constitute a single maximal fill for the LOCATION slot, because when the elements are taken together, they usually serve to unambiguously anchor the location. The individual elements are treated as alternative minimal fills.

[**Kaohsiung**], [**Taiwan**]
[**Washington**], [**D.C.**]

Compound time expressions denoting a time within a larger unit of time constitute a single maximal and minimal fill for the DATE slot.

[**January 1990]**
[**July last year]**

Note that this differs from the HUB-4 Named Entity guidelines because relative dates were not marked in HUB-4.

For contiguous specifications in a range expression (e.g., from … to…), see section 6.4.3.

6.5 Granularity

In cases where there are several independent mentions of location at different levels of generality, these will be marked as alternative fills, e.g., if there is a mention of New York, then Albany is mentioned, then US is mentioned, all of these would qualify as alternative slot fills in the reference. Even in a possessive construction, e.g., "California's Silicon Valley", the possessor NP and possessed NP would be alternative fills.

```
LOCATION:   California
            / Silicon Valley
```

In cases where there are several temporal expressions at different levels of granularity, the maximal fill is the entire phrase and the minimal fill is the date expression:

the [**morning]** after the July 17 disaster
[**February 12],** 8 A.M.
by 9 o'clock [**Monday]**
[**yesterday]** evening
4:15 p.m. [**Tuesday]** local time
early [**Friday]** evening

6.6 Extractability

6.6.1 Decomposability of names

When a temporal or locative expression is part of a proper name, it can be used as a slot fill for the DATE or LOCATION slot without the maximal fill being the entire name. This rule was not part of either the MUC-7 or HUB-4 Named Entity Guidelines.

A location name or temporal expression that is part of an event name can constitute a slot fill by itself. For example "China" and "1975" would be both the maximal and minimal slot fills if mentioned only in the following phrases and required as information in the templette.

China Film Festival
1975 World Series

The phrase "of <place name>" following an organization name may or may not be part of the organization name proper. Place names can also occur in other parts of an organization name construct. In all of the following cases, the place names can be used as fills for the LOCATION slot.

Hyundai of Korea, Inc.
Hyundai, Inc. of Korea
McDonald's of Japan
University of California in Los Angeles
the U.S. Customs Service

Location names sometimes occur within temporal or monetary expressions and can constitute LOCATION slot fills by themselves. For example, "Chicago," "U.S.," and "Japan" are all valid extractions from the following phrases.

1:30 p.m. Chicago time
U.S. $10 million
Japan time, 19 February, 8:00 A.M.

6.6.2 Sense

Some names can have different senses depending on their context. For example, the name of an airport can refer to either an organization/business or to its location/facilities.

(a) Massport, which owns and operates Logan, defended the attempts ... (business)
(b) The plane landed at Logan only to find ... (location)

Regardless of which sense a name is used for, such a name can be extracted if it indicates an answer to the question posed by the slot. Thus, "Logan" could be extractable as a LOCATION fill from example (a) above. Other such examples subject to this rule include "the White House," "the Pentagon," "Capitol Hill," and "Wall Street."

Even location names from maps can refer to organizations that are associated with them and so may be extracted as LOCATION slot fills all of the time. In the following, "Germany" refers to the "German government or nation" and "Baltimore" refers to the "Orioles," but they are both extractable if they follow the slot fill rules of the event.

Germany invaded Poland in 1939.
Baltimore defeated the Yankees by a score of 4 to 3.

In both MUC-7 and HUB-4, the sense of a phrase was not considered during markup. Here, too, we will overlook metonymic instances and focus on the desired information.

6.6.3 Syntactic category

The syntactic category of a location or time phrase does not bar it from being extracted as a slot fill. The following phrases each contain extractable locations or times even though they are in adjectival form.

American exporters
the autumn report
first-half profit

In both MUC-7 and HUB-4, the adjectival forms of locations were not marked for the Named Entity task; in the MUC-7 Template Element task, LOCATION entities were instantiated even if the only reference was adjectival.

7 REMAINING ISSUES

The fact that the reference answer is specified in terms of a maximal fill and at least one minimal fill has been a source of inconsistency in the composition of the guidelines. As stated earlier, the minimal fill defines what is required, and the maximal fill defines what is allowed. There are several possible interpretations of this definition in terms of scoring and in terms of what ends up in the extracted data.

Earlier, it was stated that any hypothesis fill overlapping the minimal fill in extent and not extending beyond the maximal fill will get full credit for the extent component of the scoring and that full credit for the content component of the score can be achieved by any substring of the hypothesized fill matching at least one of the minimal fills in the reference. This scoring rewards systems that find the right area in the news stream where the event information occurs. However, if the extracted information is to be queried in a database management system, then the system which provides the content which is closest to the reference is a more valuable system.

In adapting information extraction metrics to errorful input data, it is an open question as to whether leniency should

be given in terms of extent or content and how to give leniency effectively without diluting the metric. For example, if the annotator is instructed to extract the maximal NP for a slot fill and choose just the head noun, no matter what the content or slot, then the system working with errorful input may "know" approximately where the slot fill appeared in the stream but may miss the precise point where the head noun occurs and thus get no credit for extent or content. If the instruction to the annotator had been to mark the minimal portion of the fill which answers the question posed by the slot and the scorer were to give credit for any overlap with that minimal fill, then the system that missed the head noun may still have indicated enough to get credit for at least the extent component of the score.

It is true, however, that instructing the annotator to choose just the head noun is easier to specify both to the annotator and the system. In the case of errorful input to the system, this ease of specification may not be such an advantage. It would be helpful to the continued development of this task for participants who have looked at large amounts of speech recognizer output to provide comments on their view of the application of the metric to such data and their view of the downstream applications that customers have requested.

APPENDIX A. Natural Disaster Templette

A.1 Syntax

The rules below specify the syntax of a legal system response.

```
<TEMPLATE-n-1> :=
   DOC_NR:            [text] ^
   EVENT:             <NATURAL_DISASTER-n-m> *
   COMMENT:           "COMMENT"

<NATURAL_DISASTER-n-m> :=
   DISASTER:          [text] ^
   AMOUNT_DAMAGE:     [text] -
   NUMBER_DEAD:       [text] -
   NUMBER_INJURED:    [text] -
   LOCATION:          [text] ^
   DATE:              [text] -
   OBJECT_STATUS:     {OPTIONAL} -
   COMMENT:           "COMMENT"
```

A.2 Relevancy Criteria

1. A natural disaster is defined to be a natural occurrence causing destruction. Natural disasters are geological, meteorological, or celestial events with damage to concrete physical objects on Earth. Natural disasters include but are not limited to hurricanes, tornadoes, fires caused by lightning, meteorites, earthquakes, volcanic eruptions, monsoons, mud slides, floods, droughts, avalanches, rock slides, white outs, fog, and prolonged hot or cold temperatures. "Natural" means something that is not man-made; an effect of another natural occurrence is considered natural, but the effect cannot be too indirect.

2. Disasters caused by human error are not considered natural disasters. For example, a fire at a propane distribution center resulting from a car colliding with a propane tank is not considered a natural disaster. Brush fires that could be due to natural causes or arson are to be reported unless arson is the certain cause of the fire. However, house fires due to an unmentioned cause are not considered to be natural disasters because they are usually due to the failure of man-made materials or some human activity (accidental or intended). Furthermore, disasters due to disease or pestilence are not included here.

3. The minimal slots to be filled for an event to be relevant are: DISASTER and LOCATION. There must also be some mention of the amount of damage, injury, and/or death caused by the natural disaster, but it need not be as informative as required to fill the AMOUNT_DAMAGE, NUMBER_DEAD, and/or NUMBER_INJURED slots.

4. The disaster must be anchored in time, even if the time is not completely explicit. The following examples from PRI do not contain sufficient information for reporting:

"a cow was killed by a meteorite once, and an american woman's car was hit by a meteorite."

A.3 Fill Rules

A.3.1 DISASTER SLOT

Description of the natural disaster from the text. The natural event plus its natural results, if reported, are to be listed as alternative fills in this slot, such as storms and their mentioned natural results in the following story from CNN. This is a required slot.

<TEXT>
before the fund-raiser, president clinton met for 30 minutes with people affected by california's recent storms. mr. clinton says the federal government is determined to what it can to help the state recover. he says he'll consider a request for more rescue helicopters and some kind of mud slide insurance. 35 california counties have been declared federal disaster zones. mud slides and flooding have caused an estimated $500 million in damage so far.
</TEXT>

```
DISASTER:            california's recent [storms]
                     / [mud slides] and [flooding]
```

A.3.2 AMOUNT_DAMAGE SLOT

The amount of damage in quantified terms. Include only damage to necessities, such as food, water, air, shelter, and power, but not airports, commerce, or communications. The maximal fill for this slot must contain a noun phrase that includes quantification of the AMOUNT_DAMAGE due to the natural disaster. If there is information but no quantification, the slot should be left blank. The amount of damage will include number of animals killed or injured, damage estimated in currency ([**$10 million]** damage), number of structures ([**250 houses]**), acreage of crops, etc. The minimal fill for this slot will consist of the quantifier and what was damaged ([**tens of thousands**] spend another night [**without power**]). This slot is not a required slot.

A.3.3 NUMBER_DEAD SLOT

The number of human deaths should be reported in this slot. If the death toll is not completely known, report the present death toll. If the death toll is only an estimate, the estimate should still be reported here to give a sense of the magnitude of the disaster in human terms. Do not include the number injured or missing in this slot. If there is only information on the number injured and/or missing, the slot should be left blank. The minimal fill for this slot is the quantifier and the noun. This slot is not a required slot.

A.3.4 NUMBER_INJURED SLOT

The number of humans injured should be reported in this slot. If only an estimate is given, the estimate should be reported here. Often there is no report on injuries. The minimal fill for this slot consists of the quantifier and the noun. This slot is not a required slot.

A.3.5 LOCATION SLOT

LOCATION or LOCATIONs affected by the natural disaster. In the story above it would be correct to report either "california" or "35 california counties" as the LOCATION affected because both give significant information as to the extent of the disaster. This slot is a required slot.

```
LOCATION:            [california]
                     / 35 [california] [counties]
```

A.3.6 DATE SLOT

Description or indication of the time of the disaster. In the following CNN story, the phrase that indicates, but does not describe the time of the event can fill the slot. This is not a required slot.

<TEXT>
cleanup continues a week after killer tornadoes ripped through central florida. the death toll has been raised to 40.
</TEXT>

```
DATE:                a [week] after killer tornadoes ripped through central
   florida
```

A.4 Example

The prototypical natural disaster to be reported is from CNN:

officials in florida have ended the search for a 23-year-old man, bringing the death toll to 40 from last week's tornadoes. funerals are being held across central florida this weekend. four of the victims were buried yesterday, a husband, wife, their daughter and her fiancee. other families spent the day trying to secure belongings from the first heavy rain since the tornadoes. estimates of the damage now exceed $100 million.

The filled NATURAL_DISASTER reference templette (minimal fills in bold) would be as follows:

```
<TEMPLATE-CNN19980301.1000.0329-1> :=
   DOC_NR:           CNN19980301.1000.0329
   EVENT:            <NATURAL_DISASTER-CNN19980301.1000.0329-1>
```

```
   COMMENT:          prototypical
<NATURAL_DISASTER-CNN19980301.1000.0329-1> :=
   DISASTER:         last week's [tornadoes]
                     / the [tornadoes]
   AMOUNT_DAMAGE:    [$100 million]
   NUMBER_DEAD:      [40]
                     / [four] of the victims
                     / a [husband], [wife], their [daughter] and her [fiancee]
   LOCATION:         [florida]
                     / central [florida]
   DATE:             last [week]
```

APPENDIX B. Death Templette

B.1 Syntax

The rules below specify the syntax of a legal system response.

```
<TEMPLATE-n-1>  :=
   DOC_NR:            [text] ^
   EVENT:             <DEATH-n-m> *
   COMMENT:           "COMMENT"

<DEATH-n-m>  :=
   DECEASED:          [text] ^
   MANNER_OF_DEATH:   [text] ^
   AGENT_OF_DEATH:    [text] -
   LOCATION:          [text] -
   DATE:              [text] -
   OBJ_STATUS:        {OPTIONAL} -
   COMMENT:           "COMMENT" -
```

B.2 Relevancy Criteria

1. The death event is defined for all manners of human death, for which an official death certificate would be provided. Thus, a death event is to be generated for deaths that are intentional, as in cases of murder, execution, or war, and for deaths that are natural, self-inflicted, or as the result of accident, famine, or disease, or when the cause cannot be determined. A death event should be generated even when the deaths are only believed to have occurred, as in "10 people are believed dead". Death events should not be generated for deaths that are merely anticipated, as in "given the King's rapid deterioration, we should prepare ourselves for his inevitable death." Do not generate a death event when death is implied but not reported explicitly, as in the case when a person's legal will is executed.

2. Generate only one death event when the death of multiple victims can be attributed to the same event, as is the case for airplane crashes. If multiple deaths are reported but do *not* have the same or related event, generate separate death events for each. However, in some cases multiple events cannot be reported separately because the syntax used in the story does not allow the events to be broken up, as in the following case:

"Similar incidents in 1990 and 94 left hundreds dead."

In the case of conjoined phrases, the maximal fill is the entire conjoined phrase (see the Event99 General Guidelines, section 5.4.2). Hence, only the phrase "1990 and 94" is available as a DATE slot fill here, so these events can not be reported separately. It would be reported as a single event.

3. Minimal slots to be filled for a death event to be relevant are: DECEASED and MANNER_OF_DEATH.

B.3 Fill Rules

B.3.1 DECEASED SLOT

Description of victims, whether named or unnamed. If deceased are listed only in terms of numbers, e.g., "at least 40 people died," the death should still be reported. When an event has multiple casualties, list all of the victims. This is a required slot.

B.3.2 MANNER_OF_DEATH SLOT

Description of cause of death. When a person is murdered, for example, the MANNER_OF_DEATH would be the phrase describing the manner of death, e.g., "the ruthless murder." or "suicide" in the clause "he committed suicide. " In some cases, the manner of death is expressed as a verb or verb phrase, e.g., "Henry Commager died today," where "died" would be the correct minimal fill. Note that because MANNER_OF_DEATH is a required slot (i.e., helps determine if the event is reportable), "died" is a sufficient MANNER_OF_DEATH fill to warrant generating a death event templette. In the case of people dying in a natural disaster such as a typhoon, the MANNER_OF_DEATH would be "the typhoon" or "drowning," etc. This is a required slot.

Description of person or persons to whom the death is attributed. Report even when the AGENT_OF_DEATH is suspected, but not known for certain. Fill this slot only when death is caused by a human being or animal, regardless

of whether the death is accidental, intentional, self-inflicted, etc. For example, in the case of suicide, the victim would be listed as both the DECEASED and the AGENT_OF_DEATH. In the case of assisted suicide, list both the victim and the person assisting. Those victims that appear in the DECEASED slot should also be listed in AGENT_OF_DEATH slot *only* in the case of suicide. Victims that appear in the DECEASED slot will not also appear in the AGENT_OF_DEATH slot for "most" death events even when the victims presumably hold some degree of culpability. For instance, "the driver" would appear in the DECEASED but not the AGENT_OF_DEATH slot for: "the driver was killed in the accident due to reckless, drunken driving." This is not a required slot.

B.3.3 LOCATION SLOT

Location where death event occurred. This is not a required slot.

B.3.4 DATE SLOT

Some form of date expression describing date of death. This is not a required slot.

B.4 Examples

CNN example 1:

<TEXT> lyons still has severe abdominal wounds from bomb shrapnel, a broken leg and has temporarily lost the use of her hand. her message to eric rudolph, the sole suspect, was clear.
<TURN> if he is the guilty one then step forward, take the consequences. i had to take the consequences of what he did, he needs to stand up for what he did. if he did it.
<TURN> <ANNOTATION> Reporter: </ANNOTATION> the bombing claimed the life of off-duty police officer robert sanderson. he initially approached the bomb to examine it that morning, possibly shielding emily lyons from the full blast. </TEXT>

```
<TEMPLATE-CNN19980302.2130.0197-1>  :=
   DOC_NR:           CNN19980302.2130.0197
   EVENT:            <DEATH-CNN19980302.2130.0197-1>
<DEATH-CNN19980302.2130.0197-1>  :=
   DECEASED:         off-duty police [officer] [robert sanderson]
   MANNER_OF_DEATH:  the [bombing]
                     /the [bomb]
                     /the full [blast]
   AGENT_OF_DEATH:   [eric rudolph], the sole [suspect]
   DATE:             that [morning]
```

CNN example 2:

<TEXT> cleanup continues a week after killer tornadoes ripped through central florida. the death toll has been raised to 40. </TEXT>

```
<TEMPLATE-CNN19980301.1130.0964-1>  :=
   DOC_NR:           CNN19980301.1130.0964
   EVENT:            <DEATH-CNN19980301.1130.0964-1>
<DEATH-CNN19980301.1130.0964-1>  :=
   DECEASED:         [40]
   MANNER_OF_DEATH:  killer [tornadoes]
   LOCATION:         central [florida]
   DATE:             a [week] after killer tornadoes ripped through \
```

CNN example 3:

<TEXT> officials in florida have ended the search for a 23-year-old man, bringing the death toll to 40 from last week's tornadoes. funerals are being held across central florida this weekend. four of the victims were buried yesterday, a husband, wife, their daughter and her fiancee. other families spent the day trying to secure

belongings from the first heavy rain since the tornadoes. estimates of the damage now exceed $100 million. </TEXT>

```
<TEMPLATE-CNN19980301.1130.0488-1>  :=
   DOC_NR:           CNN19980301.1130.0488
   EVENT:            <DEATH-CNN19980301.1130.0488-1>
<DEATH-CNN19980301.1130.0488-1>  :=
   DECEASED:         a 23-year-old [man]
                     / [40]
                     / four of the [victims]
                     / a [husband], [wife], their [daughter] and her [fiancee]
   MANNER_OF_DEATH:  last week's [tornadoes]
                     the [tornadoes]
   LOCATION:         [florida]
                     / central [florida]
   DATE:             last [week]
```

CNN example 4:

<TEXT> on his birthday, yitzhak rabin's family and friends gather at his graveside. they mourn not only rabin personally, but the loss of the assassinated prime minister's vision of israel's place in the middle east. </TEXT>

```
<TEMPLATE-CNN19980301.1130.0223-1>  :=
   DOC_NR:           CNN19980301.1130.0223
   EVENT:            <DEATH-CNN19980301.1130.0223-1>
<DEATH-CNN19980301.1130.0223-1>  :=
   DECEASED:         yitzhak rabin
                     / rabin
                     / the assassinated [prime minister]
   MANNER_OF_DEATH:  assassinated
   LOCATION:         /israel
                     /the [middle east]
   COMMENT:          israel and middle east intentionally both labelled
   optional because not reported explicitly as location of death.
```

PRI example 1:

<TEXT> Two brothers have been convicted of a murder, but -- convicted of murder for an attack on three teenagers who mistakenly hopped off a freight train in a dangerous neighborhood of flint, Michigan, last Summer. The young people asked strangers for help in finding a pay phone. Instead they were taken to a park and terrorized. A boy was killed and a girl in the group was sexually assaulted. Dozens of motorists passed the bleeding, wounded young people before someone finally pulled over. Six people were involved in the attack. Four had previously pleaded guilty. The brothers aged 17 and 19 will receive automatic life sentences without the possibility of parole. </TEXT>

```
<TEMPLATE-PRI19980317.2000.0237-1>  :=
   DOC_NR:           PRI19980317.2000.0237
   EVENT:            <DEATH-PRI19980317.2000.0237-1>
<DEATH-PRI19980317.2000.0237-1>  :=
   DECEASED:         a [boy]
   MANNER_OF_DEATH:  murder
                     / murder
                     / an [attack] on three teenagers who mistakenly hopped
   off a freight train in a dangerous neighborhood of flint, Michigan
                     / A boy was [killed]
```

```
                    / the [attack]
   AGENT_OF_DEATH:  Two [brothers]
                    / the [brothers] aged 17 and 19
                    / six [people]
                    / Four
   LOCATION:        a dangerous [neighborhood] of [flint], [Michigan]
                    / a [park]
   DATE:            last [Summer]
```

PRI example 2:

<TEXT> One final clue now, this island made history in 1902 when the mount palai volcano killed 29,000 people. The largest number of casualties from a volcanic eruption this century. So what's the name of this French west Indian destination? The answer follows in just a few minutes. </TEXT>

```
<TEMPLATE-PRI19980428.2000.2417-1>  :=
   DOC_NR:          PRI19980428.2000.2417
   EVENT:           <DEATH-PRI19980428.2000.2417-1>
<DEATH-PRI19980428.2000.2417-1>  :=
   DECEASED:        29,000 [people]
   MANNER_OF_DEATH: the mount palai [volcano]
                    / a volcanic [eruption]
   LOCATION:        this French west Indian [destination]
                    / this [island]
                    / mount palai
   DATE:            1902
                    / this [century]
```

PRI example 3:

<TEXT> Well, I think he may be talking it up to some extent the certainly in Belfast I think most people, having regard to what's happened since the new year with the murders of a number of Catholics, people there are very discouraged by that. </TEXT>

```
<TEMPLATE>  :=
   DOC_NR:          PRI19980317.2000.0373
   EVENT:           <DEATH-PRI19980317.2000.0373-1>
<DEATH-PRI19980317.2000.0373-1>  :=
   DECEASED:        a number of [Catholics]
   MANNER_OF_DEATH: the [murders] of a number of Catholics
   LOCATION:        Belfast
   DATE:            since the [new year]
```

APPENDIX C. Bombing Templette

C.1 Syntax

The rules below specify the syntax of a legal system response.

```
<TEMPLATE-n-1> :=
   DOC_NR:      [text] ^
   EVENT:       <BOMBING-n-m> *
   COMMENT:     "COMMENT"
<BOMBING-n-m> :=
   PERPETRATOR:[text] -
   BOMB:        [text] -
   DAMAGE:      [text] -
   INJURY:      [text] -
   DEAD:        [text] -
   LOCATION:    [text] ^
   DATE:        [text] ^
   OBJECT_STATUS:{OPTIONAL} -
   COMMENT:     "COMMENT"
```

C.2 Relevancy Criteria

1. The act of bombing is to attack, damage, or destroy with bombs. A bomb is defined to be an explosive weapon detonated by impact, proximity to an object, a timing mechanism or other means to release destructive material.

2. The use of bombs in commercial activities are not to be reported. For example, explosions during road building, mining, or structure demolition are not considered destructive.3. The minimal slots to be filled for an event to be relevant are DATE and LOCATION.

C.3 Fill Rules

C.3.1 PERPETRATOR SLOT

The alleged, suspected, claimed, or known perpetrator should be given in this slot. All identifiers should be provided.

C.3.2 BOMB

The description or type of bomb is to be reported in this slot. For example, "[**dynamite**]," "a [**car bomb**]," or "a homemade [**bomb**] filled with nails" can be fills.

C.3.3 DAMAGE SLOT

A description of the physical damage to objects other than persons is to be put in this slot. For example, "broken [**windows**]" or "collapsed [**building**] neighboring the embassy."

C.3.4 INJURY SLOT

Identifiers of persons injured are fills for this slot, including names and descriptors.

C.3.5 DEAD SLOT

Identifiers of persons killed are fills for this slot, including names and descriptors.

C.3.6 LOCATION SLOT

The most specific location is to be given because we are interested in the target of the bombing. If the name of the building is in the story and the city the building is in is given elsewhere in the story, these should be listed as alternatives by the annotator. If the name of the city is part of the name of the building, just the building name should be reported. If there is no indication of the location of the bombing, the event should not be reported. This is a required slot.

C.3.7 DATE SLOT

Description or indication of the time of the bombing. Even times that are not well-defined are to be reported, however the date must be given in the body of the story. The date of the story is not to be used as a default. This slot

is required to be filled.

C.4 Examples

The prototypical bombing to be reported is from CNN:

<TEXT>
the nurse who was critically injured in the bombing of a birmingham, alabama, women's clinic held a news conference this morning. emily lyons lost an eye in the january 29th attack, and has not yet recovered vision in her other eye. she is currently confined to bed or a wheelchair. an off-duty police officer was killed in the bombing. lyons says the attack accomplished nothing for people who oppose legal abortion.
<TURN>
there's a sign on the office where i worked, it says, "this office stays open." and i want everyone to know that this person survives and i'll continue to survive. this has gotten me down for a little bit but i'm gonna come back, and be functional again. i will not stay down.
<TURN>
authorities are still looking for the bombing suspect, eric rudolph, in western north carolina. they have linked nails found in rudolph's storage shed to the birmingham attack and the bombing of a women's clinic near atlanta.
</TEXT>

The filled BOMBING templette would be as follows:

```
<TEMPLATE-CNN19980302.1600.0105-1> :=
   DOC_NR:            CNN19980302.1600.0105
   EVENT:             <BOMBING-CNN19980302.1600.0105-1>
   COMMENT:           prototypical

<BOMBING-CNN19980302.1600.0105-1> :=
   PERPETRATOR:       [eric rudolph]
                      / [rudolph]
   INJURY:            the [nurse] who was critically injured in the bombing
   of a birmingham,alabama, women's clinic
                      / [emily lyons]
                      / [lyons]
   DEAD:              off-duty police [officer]
   LOCATION:          [birmingham],[alabama], women's [clinic]
                      / [birmingham]
   DATE:              [january 29th]
```

An additional example from CNN in the first dataset is given below.

<TEXT>
the nurse seriously injured in the birmingham women's clinic bombing spoke publicly today for the first time since the explosion. investigators asked emily lyons not to talk about what she remembers of the blast. instead, she had a message for bombing suspect eric rudolph, who remains at large. kitty pilgrim has that.
<TURN>
<ANNOTATION> Reporter: </ANNOTATION>
this is the face of a victim of the january 29th alabama clinic bombing. her name is emily lyons, a nurse at the clinic.
<TURN>
i just happened to be in the wrong place at the wrong time.
<TURN>
<ANNOTATION> Reporter: </ANNOTATION>
her left eye so damaged, it had to be removed. her right eye will require a corneal transplant before she will be able to see again.
<TURN>
the tough part is being in the dark, pain you can handle.

<TURN>
<ANNOTATION> Reporter: </ANNOTATION>
lyons still has severe abdominal wounds from bomb shrapnel, a broken leg and has temporarily lost the use of her hand. her message to eric rudolph, the sole suspect, was clear.
<TURN>
if he is the guilty one then step forward, take the consequences. i had to take the consequences of what he did, he needs to stand up for what he did. if he did it.
<TURN>
<ANNOTATION> Reporter: </ANNOTATION>
the bombing claimed the life of off-duty police officer robert sanderson. he initially approached the bomb to examine it that morning, possibly shielding emily lyons from the full blast. the new woman's health clinic reopened within a week of the bombing, a sign in the window says "this clinic stays open." the clinic administrator says they didn't have to look for a replacement for emily, registered nurses came forward willingly to fill her job.
<TURN>
it appears he set out to abolish abortion services at this facility and women are not willing to let that happen.
<TURN>
<ANNOTATION> Reporter: </ANNOTATION>
the manhunt continues for 31-year-old fugitive eric rudolph, who was charged with the bombing. his face has appeared in national newspapers and on television for four weeks now in an appeal to the public to help find him. the face of his bombing victim may convince the public to look harder. kitty pilgrim, cnn, atlanta.
</TEXT>

```
<TEMPLATE-CNN19980302.2130.0197-1> :=
   DOC_NR:           CNN19980302.2130.0197
   EVENT:            <BOMBING-CNN19980302.2130.0197-1>
<BOMBING-CNN19980302.2130.0197-1> :=
   PERPETRATOR:      bombing [suspect] [eric rudolph], who remains at large
                     / [eric rudolph], the sole [suspect]
                     / 31-year-old [fugitive] [eric rudolph], who was charged
   with the bombing
   DAMAGE:
   INJURY:     the [nurse] seriously injured in the birmingham women's
   clinic bombing
               / [emily lyons]
               / [emily lyons], a [nurse] at the clinic
               / [lyons]
               / [emily]
               / a [victim] of the january 29th alabama clinic bombing
               / bombing [victim]
               / [emily lyons]
   DEAD:       off-duty police [officer] [robert sanderson]
   LOCATION:   [birmingham] women's [clinic]
   DATE:       [january 29th]
```

APPENDIX D. Death and Disaster Templette Fill "Gold Standard"

<DOC>
<DOCNO> VOA19980111.2300.0414 </DOCNO>
<DOCTYPE> NEWS STORY </DOCTYPE>
<DATE_TIME> 01/11/1998 23:06:54.90 </DATE_TIME>
<BODY>
<TEXT>
<ANNOTATION> headline: Earthquake in China </ANNOTATION>
<TURN>
<ANNOTATION> spkr:ANNOUNCER_HENSON </ANNOTATION>
At least 44 thousand people lost their homes in Saturday's power earthquake in China. Temperatures have dropped to minus 20, and families are huddled around fires built near haystacks and piles of bricks they have made into temporary protection from the wind and cold. At least 47 people were killed outright and more than 11,000 people were injured in the quake. Aftershocks, at least 100, continue to raffle the region. VOA's Roger Wilkerson reports.
<TURN>
<ANNOTATION> spkr:CORRESPONDENT_WILKERSON </ANNOTATION>
Rescue workers spent most of Sunday scouring through the rubble for possible survivors of the earthquake that measured 6.2 on the Richter scale and ravaged two counties more than 100 kilometers northwest of Beijing. Medical teams have brought food and medicine to some of the survivors and the Army is distributing tents, blankets, and warm clothing. Makeshift shelters dot the countryside where small villages and farming hamlets once stood. The area where the two stricken counties are located is mountainous and some places are difficult to reach.
Chinese television showed survivors of the quake huddling in crude tents made of padded quilts while others gathered around outdoor stoves to ward off the cold. The massive quake has been followed by more than 100 aftershocks, one of them measuring 4.6 on the Richter scale. And seismologists say the worst may not be over. Although they say they do not expect another big quake, they are predicting that the area north of the Great Wall of China will be hit by more aftershocks.
China's official Shin Wa News Agency reports that more than 70,000 homes in Shang Yi and Jung Bei counties located on the border between Hubei Province and inner Mongolia collapsed or were severely damaged. Earthquakes are common phenomena in China but rarely cause casualties. However, they are seen as portents of political upheaval. Two months after the last major quake struck the north city of Tung Shang and killed 240,000 people in 1976, revolutionary leader Mao Zdung died. For now, it appears that the survivors of the latest earthquake can only count on temporary relief. One newspaper quoted a local official as saying that he expects many of the survivors will come down with colds and frostbite.
Roger Wilkerson, VOA News, Beijing.
</TEXT>
</BODY>
<END_TIME> 01/11/1998 23:09:20.67 </END_TIME>
</DOC>

```
<TEMPLATE-VOA19980111.2300.0414-1> :=
   DOC_NR:           VOA19980111.2300.0414
   EVENT:            <NATURAL_DISASTER-VOA19980111.2300.0414-1>
                     <DEATH-VOA19980111.2300.0414-1>
                     <NATURAL_DISASTER-VOA19980111.2300.0414-2>
                     <DEATH-VOA19980111.2300.0414-2>
                     <DEATH-VOA19980111.2300.0414-3>
<NATURAL_DISASTER-VOA19980111.2300.0414-1> :=
   DISASTER:         [Earthquake] in China
                     / Saturday's power [earthquake] in China
                     / the [quake]
                     / the [earthquake] that measured 6.2 on the Richter
```

```
      scale and ravaged two counties more than 100 kilometers northwest of
      Beijing
                        / the [quake]
                        / The massive [quake]
                        / the latest [earthquake]
      AMOUNT_DAMAGE:    At least [44 thousand people lost their homes] in
      Saturday's power earthquake in China
                        / more than [70,000 homes] in Shang Yi and Jung Bei
      counties located on the border between Hubei Province and inner Mongolia
      NUMBER_DEAD:      At least [47 people]
      NUMBER_INJURED:   more than [11,000 people]
      LOCATION:         [China]
                        / [China]
                        / the [region]
                        / two [counties] more than 100 kilometers northwest of
      Beijing
                        / the [countryside] where small villages and farming
      hamlets once stood
                        / the two stricken [counties]
                        / the [area] north of the Great Wall of [China]
                        / [China]
                        / [Shang Yi] and [Jung Bei] [counties] located on the
      border between Hubei Province and inner Mongolia
      DATE:             [Saturday]
   <DEATH-VOA19980111.2300.0414-1>  :=
      DECEASED:         At least 47 [people]
      MANNER_OF_DEATH:  [Earthquake] in China
                        / Saturday's power [earthquake] in China
                        / the [quake]
                        / the [earthquake] that measured 6.2 on the Richter
      scale and ravaged two counties more than 100 kilometers northwest of
      Beijing
                        / the [quake]
                        / The massive [quake]
                        / the latest [earthquake]
      LOCATION:         [China]
                        / [China]
                        / the [region]
                        / two [counties] more than 100 kilometers northwest of
      Beijing
                        / the [countryside] where small villages and farming
      hamlets once stood
                        / the two stricken [counties]
                        / the [area] north of the Great Wall of [China]
                        / [China]
                        / [Shang Yi] and [Jung Bei] [counties] located on the
      border between Hubei Province and inner Mongolia
      DATE:             [Saturday]
   <NATURAL_DISASTER-VOA19980111.2300.0414-2> :=
      DISASTER:         the last major [quake]
      NUMBER_DEAD:      [240,000 people]
      LOCATION:         the north [city] of [Tung Shang]
                        / [China]
                        / [China]
```

```
                    / [China]
   DATE:            [1976]
<DEATH-VOA19980111.2300.0414-2>  :=
   DECEASED:        240,000 [people]
   MANNER_OF_DEATH: the last major [quake]
   LOCATION:        the north [city] of [Tung Shang]
                    / [China]
                    / [China]
                    / [China]
   DATE:            [1976]
<DEATH-VOA19980111.2300.0414-3>  :=
   DECEASED:        revolutionary [leader] [Mao Zdung]
   MANNER_OF_DEATH: revolutionary leader Mao Zdung [died]
   DATE:            Two [months] after the last major quake struck the
   north city of Tung Shang and killed 240,000 people in 1976
   COMMENT:         Location of death not specified
```

<DOC>
<DOCNO> VOA19980413.1800.0788 </DOCNO>
<DOCTYPE> NEWS STORY </DOCTYPE>
<DATE_TIME> 04/13/1998 18:13:08.13 </DATE_TIME>
<BODY>
<TEXT>
It's 13 minutes past the hour. Forest fires raging out of the control on the Indonesian side of Borneo island have brought smoke and haze to neighboring Singapore. Authorities say easterly winds from Borneo carried the smoky conditions over Singapore Monday, shrouding buildings in pollution, and reducing visibility.
In Brunei, meanwhile, haze levels remain hazardous. The local international airport has been forced to shut down many times in the last few weeks. Several incoming and outgoing flights were canceled on Monday. Some foreign embassies, including that of the United States, prepared to send their staff out of Brunei for temporary relief from the pollution.
</TEXT>
</BODY>
<END_TIME> 04/13/1998 18:13:48.28 </END_TIME>
</DOC>

```
<TEMPLATE-VOA19980413.1800.0788-1> :=
   DOC_NR:          VOA19980413.1800.0788
   EVENT:           <NATURAL_DISASTER-VOA19980413.1800.0788-1>
<NATURAL_DISASTER-VOA19980413.1800.0788-1> :=
   DISASTER:        Forest [fires] raging out of the control on the
   Indonesian side of Borneo island
                    / [smoke] and [haze]
                    / the smoky [conditions]
                    / [pollution]
                    / [haze]
                    / the [pollution]
   LOCATION:        the Indonesian side of [Borneo] [island]
                    / neighboring [Singapore]
                    / [Borneo]
                    / [Singapore]
                    / [Brunei]
                    / [Brunei]
   DATE:            [Monday]
                    / the last few [weeks]
```

```
                        / [Monday]
```

<DOC>
<DOCNO> VOA19980126.2100.1446 </DOCNO>
<DOCTYPE> NEWS STORY </DOCTYPE>
<DATE_TIME> 01/26/1998 21:24:06.95 </DATE_TIME>
<BODY>
<TEXT>
<ANNOTATION> headline: Sheep in Kenya struck by "Blue Tongue Disease", first time since 1905 </ANNOTATION>
<TURN>
<ANNOTATION> spkr:ANNOUNCER_CLARK </ANNOTATION>
In Kenya, sheep have been struck by what's been called "Blue Tongue Disease." That's a rare infection that hasn't been seen in the country since 1905. Sonya Lawrence Green reports on the seriousness of the outbreak.
<TURN>
<ANNOTATION> spkr:CORRESPONDENT_GREEN </ANNOTATION>
Sheep farmers in the Kadgiata and Lykipia districts have already lost ten percent of their herds to the disease, and could lose one-third of their stock. Blue Tongue Disease is spread by mosquitoes and veterinary experts are advising farmers to move their sheep away from swampy areas to try and curb the spread of the illness. They say that Blue Tongue Disease does not pose any threat to humans.
Over the past three months, Kenya has been hit by torrential rains and flooding, causing an explosion in the mosquito population. Other mosquito borne diseases like malaria and Rift Valley Fever have increased dramatically. At least 450 people have died from Rift Valley Fever which can jump between animals and humans causing high fever, diarrhea, vomiting and bleeding.
Sonya Lawrence Green for VOA News, Nairobi.
</TEXT>
</BODY>
<END_TIME> 01/26/1998 21:25:07.37 </END_TIME>
</DOC>

```
<TEMPLATE-VOA19980126.2100.1446-1> :=
   DOC_NR:            VOA19980126.2100.1446
   EVENT:             <DEATH-VOA19980126.2100.1446-1>
   COMMENT:           NATURAL_DISASTER templette not generated for rains and
   flooding because no direct damage mentioned.
<DEATH-VOA19980126.2100.1446-1>  :=
   DECEASED:          At least 450 [people]
   MANNER_OF_DEATH:         [Rift Valley Fever]
                            / [Rift Valley Fever] which can jump between
   animals and humans causing high fever, diarrhea, vomiting and bleeding
   LOCATION:          [Kenya]
                      / [Kenya]
                      / the [country]
                      / [Kenya]
```

<DOC>
<DOCNO> VOA19980112.2300.0339 </DOCNO>
<DOCTYPE> NEWS STORY </DOCTYPE>
<DATE_TIME> 01/12/1998 23:05:39.16 </DATE_TIME>
<BODY>
<TEXT>
<ANNOTATION> headline: Northeastern United States and Canada storm leaves 30 dead due to flooding and ice </ANNOTATION>
<TURN>

<ANNOTATION> spkr:MR._BACHARD </ANNOTATION>
National Guard troops are scouring ice bound areas of the northeastern United States in search for people isolated by last week's storm. The Guard stepped up its patrols Monday as a severe frost hit the storm ravaged areas of the United States and Canada. The storm left a total of 30 people dead due to flooding and ice. This is VOA News.
</TEXT>
</BODY>
<END_TIME> 01/12/1998 23:06:09.66 </END_TIME>
</DOC>

```
<TEMPLATE-VOA19980112.2300.0339-1> :=
   DOC_NR:            VOA19980112.2300.0339
   EVENT:             <NATURAL_DISASTER-VOA19980112.2300.0339-1>
                      <DEATH-VOA19980112.2300.0339-1>
<NATURAL_DISASTER-VOA19980112.2300.0339-1> :=
   DISASTER:          Northeastern United States and Canada [storm]
                      / [flooding] and [ice]
                      / last week's [storm]
                      / severe [frost]
                      / [storm]
                      / The [storm]
                      / [flooding] and [ice]
   NUMBER_DEAD:       [30]
                      / a total of [30 people]
   LOCATION:          Northeastern [United States] and [Canada]
                      / the northeastern [United States]
                      / the [United States] and [Canada]
   DATE:              last [week]
                      / [Monday]
<DEATH-VOA19980112.2300.0339-1>  :=
   DECEASED:          [30]
                      / a total of 30 [people]
   MANNER_OF_DEATH:   Northeastern United States and Canada [storm]
                      / [flooding] and [ice]
                      / last week's [storm]
                      / severe [frost]
                      / [storm]
                      / The [storm]
                      / [flooding] and [ice]
   LOCATION:          Northeastern [United States] and [Canada]
                      / the northeastern [United States]
                      / the [United States] and [Canada]
   DATE:              last [week]
                      / [Monday]
```

<DOC>
<DOCNO> VOA19980409.2300.0057 </DOCNO>
<DOCTYPE> NEWS STORY </DOCTYPE>
<DATE_TIME> 04/09/1998 23:00:57.51 </DATE_TIME>
<BODY>
<TEXT>
<ANNOTATION> headline: 107 Muslim pilgrims killed in stampede outside Mecca </ANNOTATION>
In Saudi Arabia, more than 1000 Muslim pilgrims have been killed in a stampede outside the holy city of Mecca. VOA Middle East correspondent, Douglas Roberts, reports the tragedy occurred on the final day of the

annual pilgrimage.
<TURN>
<ANNOTATION> spkr:CORRESPONDENT_ROBERTS </ANNOTATION>
The official Saudi news agency puts the initial death toll at 107, but says that figure may rise. The tragedy occurred shortly after midday Thursday, when thousands of people gathered on a plain outside Mecca to perform one of the final rites of the pilgrim, the ritual stoning of the devil, when each pilgrim throws small pebbles at what are known as the pillars of temptation.
The Saudi news agency report says several of the pilgrims fell off an overpass, provoking the stampede. Similar incidents in 1990 and 94 left hundreds dead. Until Thursday's deaths, this year's pilgrimage had gone smoothly. Some 2.3 million Muslims travelled to Mecca, about half of them foreigners.
Douglas Roberts, VOA News, Cairo.
<TURN>
<ANNOTATION> spkr:ANNOUNCER_DEFOREST </ANNOTATION>
Repeating once again, at least 107 people have been trampled to death on the last day of the annual hajj in Saudi Arabia.
</TEXT>
</BODY>
<END_TIME> 04/09/1998 23:02:07.91 </END_TIME>
</DOC>

```
<TEMPLATE-VOA19980409.2300.0057-1> :=
   DOC_NR:           VOA19980409.2300.0057
   EVENT:            <DEATH-VOA19980409.2300.0057-1>
                     <DEATH-VOA19980409.2300.0057-2>
<DEATH-VOA19980409.2300.0057-1>  :=
   DECEASED:         107 Muslim [pilgrims]
                     / more than 1000 Muslim [pilgrims]
                     / [107]
                     / at least 107 [people]
   MANNER_OF_DEATH:  [stampede] outside Mecca
                     / a [stampede] outside the holy city of Mecca
                     / the [stampede]
                     / the [tragedy]
                     / at least 107 people have been [trampled] to death on
   the last day of the annual hajj in Saudi Arabia
   LOCATION:         outside [Mecca]
                     / [Saudi Arabia]
                     / outside the holy [city] of [Mecca]
                     / a [plain] outside [Mecca]
                     / [Mecca]
                     / [Saudi Arabia]
   DATE:             the final [day] of the annual pligrimage
                     / shortly after midday [Thursday]
                     / [Thursday]
                     / the last [day] of the annual hajj in Saudi Arabic
<DEATH-VOA19980409.2300.0057-2> :=
   DECEASED:         [hundreds]
   MANNER_OF_DEATH:  Similar [incidents] in 1990 and 94
   LOCATION:         / outside [Mecca]
                     / [Saudi Arabia]
                     / outside the holy [city] of [Mecca]
                     / a [plain] outside [Mecca]
                     / [Mecca]
                     / [Saudi Arabia]
```

```
   DATE:              [1990] and [94]
   OBJECT_STATUS:     OPTIONAL
   COMMENT:           optional because information on MANNER_OF_DEATH so
   vague
```

<DOC>
<DOCNO> VOA19980409.2300.0157 </DOCNO>
<DOCTYPE> NEWS STORY </DOCTYPE>
<DATE_TIME> 04/09/1998 23:02:37.41 </DATE_TIME>
<BODY>
<TEXT>
<ANNOTATION> headline: Tensions mount between Palestinian authorities and Hamas </ANNOTATION>
Tension is increasing between the Palestinian authority and Hamas militants. Thursday, Palestinian police detained Hamas leader Abdel Aziz Rantisi after he accused the authority of collaborating with Israel in the death of Hamas bomb maker Muhyideen Sharif. Hamas says Mr. Rantisi's arrest is a serious escalation of tensions.
Mr. Sharif's body was found on March 29 near the West Bank car bomb explosion. Hamas blames Israel, but a Palestinian authority investigation says Mr. Sharif was shot dead before the bomb went off, and accuses rival Hamas members of the murder.
</TEXT>
</BODY>
<END_TIME> 04/09/1998 23:03:14.49 </END_TIME>
</DOC>

```
<TEMPLATE-VOA19980409.2300.0157-1> :=
   DOC_NR:            VOA19980409.2300.0157
   EVENT:             <DEATH-VOA19980409.2300.0157-1>
<DEATH-VOA19980409.2300.0157-1>  :=
   DECEASED:          Hamas bomb [maker] [Muhyideen Sharif]
                      / [Mr. Sharif]
                      / [Mr. Sharif]
   MANNER_OF_DEATH:   the West Bank car bomb [explosion]
                      / Mr. Sharif was [shot] dead before the bomb went off
                      / the [murder]
   AGENT_OF_DEATH:    Palestinian [authority]
                      / the [authority]
                      / [Israel]
                      / rival [Hamas] [members]
   LOCATION:          near the [West Bank] car bomb [explosion]
   DATE:              [March 29]
   COMMENT:           Included "explosion" in MANNER_OF_DEATH because it's
   not clear that the explosion didn't kill him. It was only claimed that
   he was shot first.
```

<DOC>
<DOCNO> ABC19980205.1830.0392 </DOCNO>
<DOCTYPE> NEWS STORY </DOCTYPE>
<DATE_TIME> 02/05/1998 18:36:32.58 </DATE_TIME>
<BODY>
<TEXT>
other news now, in the italian town of cavalese today, u.s. military personnel were among those who attended a memorial service for the 20 people who died when a marine plane cut through the wires of a cable car causing it to fall to the ground. the pentagon said today it would give $5,000 to each of the families to help cover burial costs. investigators still have no other explanation other than recklessness, that is, for what happened.

</TEXT>
</BODY>
<END_TIME> 02/05/1998 18:37:02.00 </END_TIME>
</DOC>

```
<TEMPLATE-ABC19980205.1830.0392-1> :=
   DOC_NR:           ABC19980205.1830.0392
   EVENT:            <DEATH-ABC19980205.1830.0392-1>
<DEATH-ABC19980205.1830.0392-1>  :=
   DECEASED:         the 20 [people] who died when a marine plane cut
   through the wires of a cable car causing it to fall to the ground
   MANNER_OF_DEATH:  a marine plane [cut] through the wires of a cable car
   causing it to fall to the ground
                     / [died]
```

<DOC>
<DOCNO> ABC19980408.1830.1337 </DOCNO>
<DOCTYPE> NEWS STORY </DOCTYPE>
<DATE_TIME> 04/08/1998 18:52:17.50 </DATE_TIME>
<BODY>
<TEXT>
Two important items overseas today about men accused of being killers. Two indicted Bosnian war criminals were arrested by NATO troops today. The men are accused of running the omarska prison camp, where Muslims and croats were tortured and murdered. Yesterday, a British television network showed that one of the men was living openly in his hometown.
</TEXT>
</BODY>
<END_TIME> 04/08/1998 18:52:38.85 </END_TIME>
</DOC>

```
<TEMPLATE-ABC19980408.1830.1337-1> :=
   DOC_NR:           ABC19980408.1830.1337
   EVENT:            <DEATH-ABC19980408.1830.1337-1>
<DEATH-ABC19980408.1830.1337-1> :=
   DECEASED:         [Muslims] and [croats]
   MANNER_OF_DEATH:  Muslims and croats were [tortured] and [murdered]
   AGENT_OF_DEATH:   [men] accused of being killers
                     / Two indicted Bosnian war [criminals]
                     / The [men]
                     / one of the [men]
   LOCATION:         the [omarska] prison [camp], where Muslims and croats
   were tortured and murdered
                     / [overseas]
```

<DOC>
<DOCNO> ABC19980205.1830.0504 </DOCNO>
<DOCTYPE> NEWS STORY </DOCTYPE>
<DATE_TIME> 02/05/1998 18:38:24.82 </DATE_TIME>
<BODY>
<TEXT>
the biggest winter storm of the season has now moved north from florida to the mid-atlantic and new england states. this is very much an el nino-inspired storm. it has caused 20 deaths so far. tonight abc's antonio mora is on the new jersey shore.
<TURN>

<ANNOTATION> Reporter: </ANNOTATION>
in the eastern u.s. it was almost impossible to get away from the deadly storm. many of those killed died in traffic accidents like this one in louisville, kentucky. the storm's reach was enormous. it blanketed cincinnati, ohio, with snow, just as it sent waves crashing over the boardwalk in chatham, massachusetts, 800 miles away. near roanoke, virgina, a raging river washed away train tracks, sending a freight train plunging into the water. the powerful surf collapsed houses in virginia beach and flooded homes from maryland to new york. in bradley beach, new jersey, crews fought to save beaches from more heavy erosion. and up the coast in seabright, residents kept up a two-day struggle against danger from two sides.
<TURN>
i'm bracing for the river. the river, not the ocean.
<TURN>
<ANNOTATION> Reporter: </ANNOTATION>
the storm has finally begun to move out to sea. but the next high tide tomorrow morning till poses the threat of more damaging waves and flooding. antonio mora, abc news, long branch, new jersey.
</TEXT>
</BODY>
<END_TIME> 02/05/1998 18:39:42.90 </END_TIME>
</DOC>

```
<TEMPLATE-ABC19980205.1830.0504-1> :=
   DOC_NR:           ABC19980205.1830.0504
   EVENT:            <NATURAL_DISASTER-ABC19980205.1830.0504-1>
                     <DEATH-ABC19980205.1830.0504-1>
<NATURAL_DISASTER-ABC19980205.1830.0504-1> :=
   DISASTER:         the biggest winter [storm] of the season
                     / an el nino-inspired [storm]
                     / the deadly [storm]
                     / the [storm]
                     / [snow]
                     / [waves]
                     / a raging [river]
                     / the powerful [surf]
                     / more heavy [erosion]
                     / the [storm]
   NUMBER_DEAD:      [20 deaths]
   LOCATION:         from [florida] to the [mid-atlantic] and [new england]
   [states]
                     / the [new jersey] [shore]
                     / the eastern [u.s.]
                     / [louisville], [kentucky]
                     / [cincinnati], [ohio]
                     / the [boardwalk] in [chatham], [massachusetts], 800
   miles away
                     / near [roanoke], [virgina]
                     / [virginia beach]
                     / from [maryland] to [new york]
                     / [bradley beach], [new jersey]
                     / up the coast in [seabright]
                     / [long branch], [new jersey]
   DATE:             [now]
                     / [tonight]
<DEATH-ABC19980205.1830.0504-1>  :=
   DECEASED:         20 [deaths]
                     / many of [those] killed
```

```
   MANNER_OF_DEATH:  the biggest winter [storm] of the season
                     / an el nino-inspired [storm]
                     / the deadly [storm]
                     / died in traffic [accidents] like this one in
   louisville, kentucky
                     / the [storm]
                     / the [storm]
   LOCATION:         [louisville], [kentucky]
                     / from [florida] to the [mid-atlantic] and [new
   england] [states]
                     / the eastern [u.s].
```

<DOC>
<DOCNO> ABC19980404.1830.0597 </DOCNO>
<DOCTYPE> NEWS STORY </DOCTYPE>
<DATE_TIME> 04/04/1998 18:39:57.29 </DATE_TIME>
<BODY>
<TEXT>
They're trying to clean up the damage after tornadoes swept through three southern states yesterday. The storms caused havoc in South Carolina, Tennessee and Georgia. In atlanta, A landscaper was killed by lightning. At least eight twister touched down in Tennessee, destroying or damaging about 40 homes
</TEXT>
</BODY>
<END_TIME> 04/04/1998 18:40:14.68 </END_TIME>
</DOC>

```
<TEMPLATE-ABC19980404.1830.0597-1> :=
   DOC_NR:           ABC19980404.1830.0597
   EVENT:            <NATURAL_DISASTER-ABC19980404.1830.0597-1>
                     <DEATH-ABC19980404.1830.0597-1>
<NATURAL_DISASTER-ABC19980404.1830.0597-1> :
   DISASTER:         [tornadoes]
                     / The [storms]
                     / [lightning]
                     / At least eight [twister]
   AMOUNT_DAMAGE:    about [40 homes]
   NUMBER_DEAD:      A [landscaper]
   LOCATION:         three southern [states]
                     / [South Carolina], [Tennessee] and [Georgia]
                     / [atlanta]
                     / [Tennessee]
   DATE:             [yesterday]
<DEATH-ABC19980404.1830.0597-1>
   DECEASED:         A [landscaper]
   MANNER_OF_DEATH:  [lightning]
   LOCATION:         [atlanta]
   DATE:             [yesterday]
```

<DOC>
<DOCNO> ABC19980320.1830.0852 </DOCNO>
<DOCTYPE> NEWS STORY </DOCTYPE>
<DATE_TIME> 03/20/1998 18:44:12.67 </DATE_TIME>
<BODY>
<TEXT>

One of the world's greatest treasures and one of its oldest cultures are threatened tonight by massive forest fires. It is happening in northern Brazil in the Amazon rain forest. And it is a devastating natural disaster, brought on by nature and man. Here's ABC's Deborah amos.
<TURN>
<ANNOTATION> Reporter: </ANNOTATION>
Fires are burning out of control over an area bigger than the state of Delaware. Now, scorching large parts of the rain forests for the first time in thousands of years. And now the yanomami Indians, who have lived in those forests for thousands of years, are at risk. The flames are close. The fish and wild life they live on are dying, and many fear so is an ancient way of life. Firefighters battle the blaze with the most basic tools. But with fires advancing at six miles a day, there's no way they can stop it. This fire chief says there's no more hope for this part of the forest. El Nino is partly to blame. Drought made the forest floor a tinder box this year, but local loggers and farmers also played a role. Seasonal rains could douse all these flames, but there's been tonight, the yanomami Elders are praying for rain. Deborah amos, ABC News, New York.
</TEXT>
</BODY>
<END_TIME> 03/20/1998 18:45:35.94 </END_TIME>
</DOC>
<DOC>

```
<TEMPLATE-ABC19980320.1830.0852-1> :=
   DOC_NR:            ABC19980320.1830.0852
   EVENT:             <NATURAL_DISASTER-ABC19980320.1830.0852-1>
<NATURAL_DISASTER-ABC19980320.1830.0852-1> :=
   DISASTER:          massive forest [fires]
                      / a devastating natural [disaster] bought on my nature
   and man
                      / [Fires]
                      / the [flames]
                      / the [blaze]
                      / [fires]
                      / all these [flames]
   LOCATION:          northern [Brazil]
                      / the [Amazon] rain [forest]
                      / the rain [forests]
                      / those [forests]
                      / this part of the [forest]
                      / [forest]
   DATE:              [tonight]
                      / [Now]
                      / [now]
                      / [tonight]
```