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# NATIONAL INTELLIGENCE SURVEY

## ALBANIA

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### SECTION 23

### WEATHER AND CLIMATE

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OCTOBER 1963

*Section 23 on NIS 20 is issued under the NIS maintenance program. It supersedes the material on Albania in the original Section 23 on NIS 19-21, dated March 1951. Hungary and Yugoslavia are designated as NIS Areas 19 and 21, respectively, and subsequent revisions of NIS units on these areas will be so identified.*

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# NATIONAL INTELLIGENCE SURVEY

## ALBANIA

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### SECTION 23

### WEATHER AND CLIMATE

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OCTOBER 1963

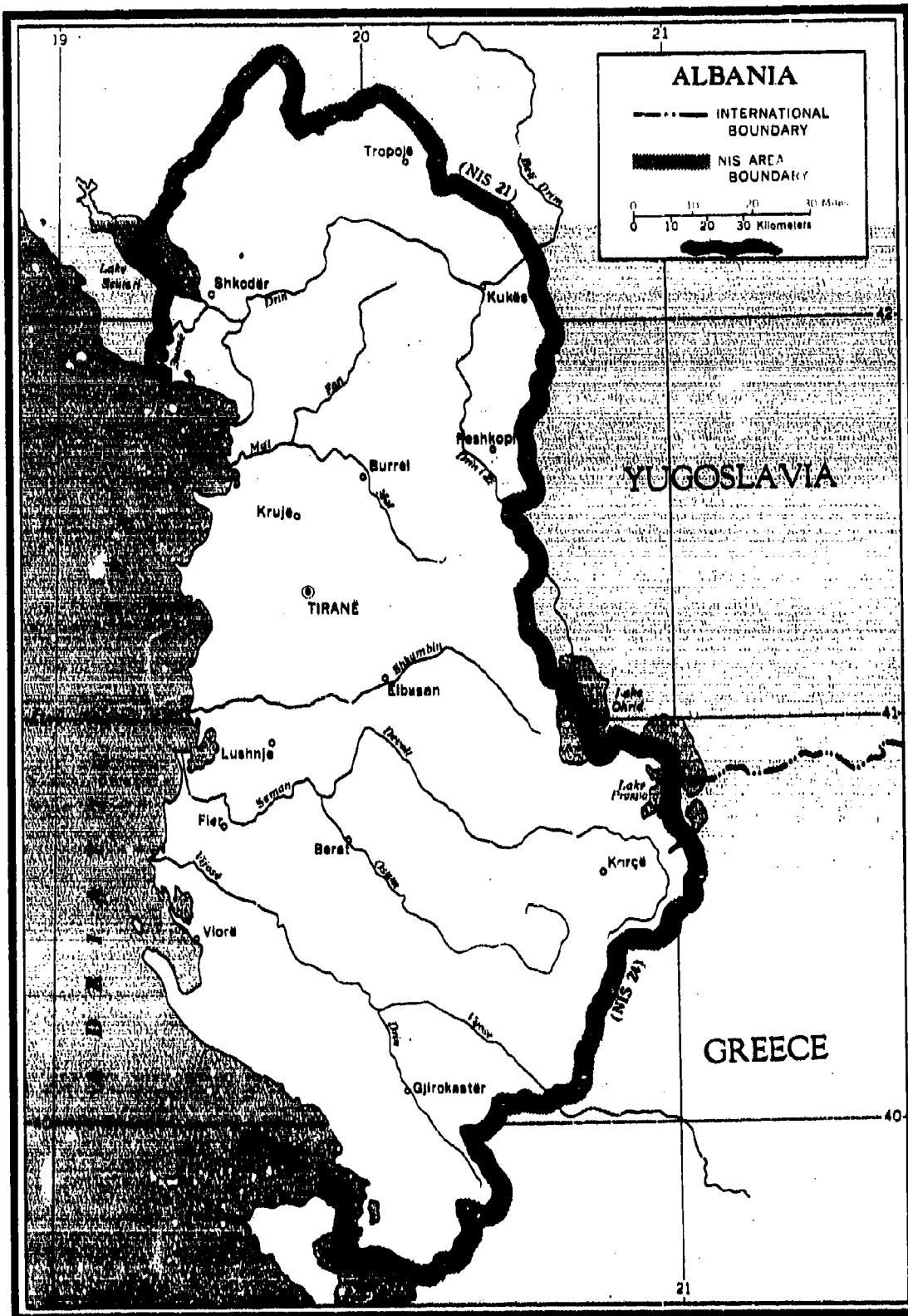
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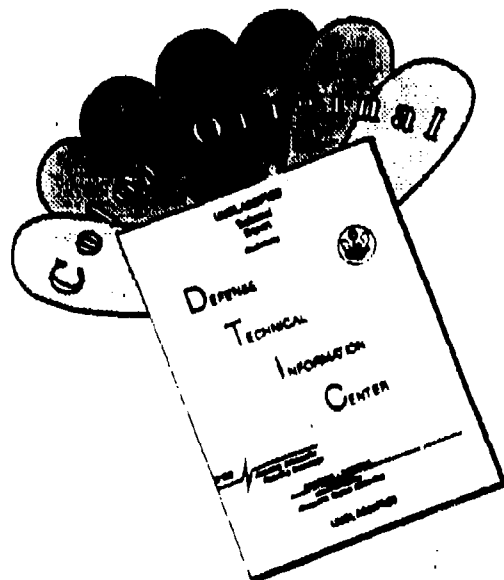


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*This Section was prepared for the NIS by the Defense Intelligence Agency with a contribution on amphibious operations from the Office of the U.S. Naval Weather Service.*

## 23. Weather and Climate

### A. General weather and climatic conditions

#### 1. Introduction

Albania, situated on the southwest coast of the Balkan Peninsula, has a wide variety of terrain features, ranging from coastal lowlands in the west to rugged mountains in the east. It is bounded on the north and northeast by Yugoslavia, on the south and southeast by Greece, and on the west by the Adriatic Sea. The country has essentially a Mediterranean climate with hot, dry summers and mild, rainy winters. The climatic controls are primarily the large semipermanent pressure systems, bringing contrasting air masses over the Area, and the succession of migratory pressure systems and fronts which traverse the Adriatic in September through May, bringing widespread rain, cloudiness, and generally bad weather to the Area. The rugged mountains north and east of Albania obstruct and modify the severely cold winter air arriving from the interior of the great Eurasian landmass. The complex topography within the country also contributes greatly to the areal contrasts in climate in all seasons. The seas to the west and southwest are important both in moderating temperatures and as moisture sources for the invading air masses and migratory cyclones.

Summers are hot throughout most of Albania with mean daily maximum temperatures (°F.) mostly in the 80's and 90's. Some exposed coastal locations and most mountain locations are cooler. Winters are mild with mean daily minimum temperatures generally in the 40's on the coast where the warming influence of the seas is strongest, decreasing inland to the 20's and 30's over the interior mountains where the higher elevation is an important factor. All locations throughout the Area have experienced freezing temperatures. Near drought conditions prevail in summer when rainfall usually averages only  $\frac{1}{2}$  to 2 inches per month and comes in the form of brief showers. Precipitation is generally plentiful in autumn through spring when cyclonic activity is greatest. However, mean amounts vary considerably from place to place during this rainy period, ranging from a few inches per month at many locations to over 25 inches per month on some exposed mountain slopes. Most precipitation consists of heavy showers or short periods of heavy continuous rain

or snow. Snow has occurred throughout Albania, but it is most frequent in the mountains of the interior. On the average, relative humidity is lowest, between 30% and 60%, on July and August afternoons, and highest, about 75% to 95%, in early mornings during late autumn and winter. As a rule, clear skies prevail in summer when most stations have less than 25% mean cloudiness in both July and August. Mean cloudiness is fairly extensive in the remainder of the year, increasing to about 50% to 80% in November through May. Ceiling and visibility limits are usually adequate for most air-ground operations, with the worst conditions generally occurring along the windward slopes in winter. Fog is a minor visibility factor throughout the year. Dust may occasionally restrict visibility, mainly in the summer. Heavy rain restricts visibility frequently in the cold months and briefly in summer thunderstorms. At times, snow also limits visibility, especially in the northern mountains. Thunderstorms are reported over most of Albania throughout the year, but the frequency is generally low. Surface winds of a destructive nature seldom occur; they are most often experienced in the northern mountains during winter.

Albania, slightly larger but somewhat similar in size and shape to the state of Vermont, covers approximately 11,000 square miles. Its greatest dimensions are about 210 miles north-south and about 90 miles east-west. Roughly two-thirds of the country is composed of hills and mountains. Low mountains extend to the coast in the south. The remainder of Albania is comprised of coastal lowlands which are most extensive in the central and northern parts and are often interrupted by low hills. At places these hills merge with the foothills of the interior mountains. Marshes and swamps are numerous in the coastal lowlands, especially during the wet season, and the surface of the lowland is cut up by numerous irrigation and drainage ditches. Nearly all of the many rivers winding across Albania drain into the Adriatic Sea.

For discussion purposes, Albania is divided into two regions (FIGURE 43): 1) Coast and 2) Interior Mountains. This division is based on topography and climatic factors such as air masses, temperature, precipitation, and cloudiness.

The Coast Region extends for the most part 10 to 35 miles inland. It includes mostly lowland plains and marshes, interrupted by hills which merge in places with the foothills of the interior mountains that fringe the region. Low mountains with peaks to about 5,000 feet reach the coast in the south. Hot summers are moderated by frequent sea breezes. Summer rainfall is very light, especially in the south, and skies are frequently clear. Winters are mild; the warming influence of the adjacent seas and the invading warm air masses keep temperatures above freezing most of the time. The region feels the full force of the migratory pressure systems of autumn, winter, and spring which bring widespread cloudiness and precipitation. Snowfall is infrequent over most of the region.

The Interior Mountains Region is comprised of hills and mountains, with many peaks between 7,000 and 9,000 feet. The most rugged mountains are located in the northern and northeastern parts of the region. Numerous valleys of various depths are interwoven throughout the mountains. In general, the climate is more variable from place to place in the Interior Mountains Region than in the Coast Region because of the differences in elevation and the local terrain effects. Summers are cooler at the higher elevations, particularly at night. Summer rainfall is meager, but the additional lift imparted by the mountain slopes to the normal afternoon convection results in increased thundershower activity. Winters in the Interior Mountains Region are mild at the lower elevations, but at the higher mountain locations the temperatures are considerably colder. In general, cloudiness is extensive and precipitation moderate to heavy. However, variations from place to place are considerable; windward slopes may have frequent cloudiness and precipitation while lee slopes and sheltered valleys at times experience very little of either. Snowfall is significantly more frequent than in the Coast Region.

The climatic seasons used in this Section, unless otherwise stated, are the usual Northern Hemisphere seasons: winter (December through February), spring (March through May), summer (June through August), and autumn (September through November).

## 2. Climatic controls

The primary controls over the climate of Albania are the large semipermanent pressure systems, the migratory pressure systems and fronts, the principal air masses, and the topographic features both within and without the Area. Other controls of less importance are latitude and the location of the Area with respect to the adjacent seas.

a. GENERAL CIRCULATION — The major semipermanent pressure systems controlling the general circulation over Albania are the Icelandic low, the Azores high, and the alternating winter Siberian high and summer Asiatic low. The seasonal climatic pattern is determined largely by the relative strengths of these semipermanent pressure fields. FIGURES 1 and 2 display the mean pressure distribution and general surface airflow patterns for January and July, representative months of the winter and summer seasons. Local variations resulting from land and sea breezes and from terrain features are necessarily disregarded. The mean pressure patterns of the transition seasons, spring and autumn, are intermediate between the winter and summer patterns.

In winter, the Siberian high, Azores high, and Icelandic low are the semipermanent pressure systems that influence the Area. The Siberian high extends southwestward into the northern Balkans. The Azores high centered southwest of Spain extends into the western Mediterranean and northern Africa. Albania lies in a zone of relatively low pressure between the two high-pressure systems in their mean positions. In general, the resulting airflow is from the southeast quadrant. However, migratory depressions, sometimes associated with the circulation around the Icelandic low, move across this low-pressure zone, constantly altering the circulation over the Area.

In summer, the Siberian high is replaced by the Asiatic low which is centered over and east of the Persian Gulf; a belt of low pressure extends westward into the eastern Mediterranean and over northern Africa. The intensity of the Icelandic low is greatly diminished, with almost complete cessation of the associated migratory depressions which affect the Area in winter. The Azores high is intensified and displaced northward with an extension over the western Mediterranean. The resulting circulation is generally from the north or northwest over most of Albania.

b. MIGRATORY PRESSURE SYSTEMS AND FRONTS — The climate of Albania is greatly influenced by weather changes associated with the passage of migratory depressions or cyclones, some of which are accompanied by fronts. Depressions affecting this NIS Area are frequently shallow and of small extent by middle latitude standards; they may be equally intense, but the duration of associated bad weather is shorter. Also, the warm air sector of the wave cyclone is warmer and less moist than the warm sector usually observed in middle latitudes. Consequently, active warm fronts with low ceilings, poor visibility, and continuous rain or drizzle are not often found. Most of the cloudy and rainy weather experienced in the Area derives from migratory depressions and their accompanying fronts. The frequency and intensity of

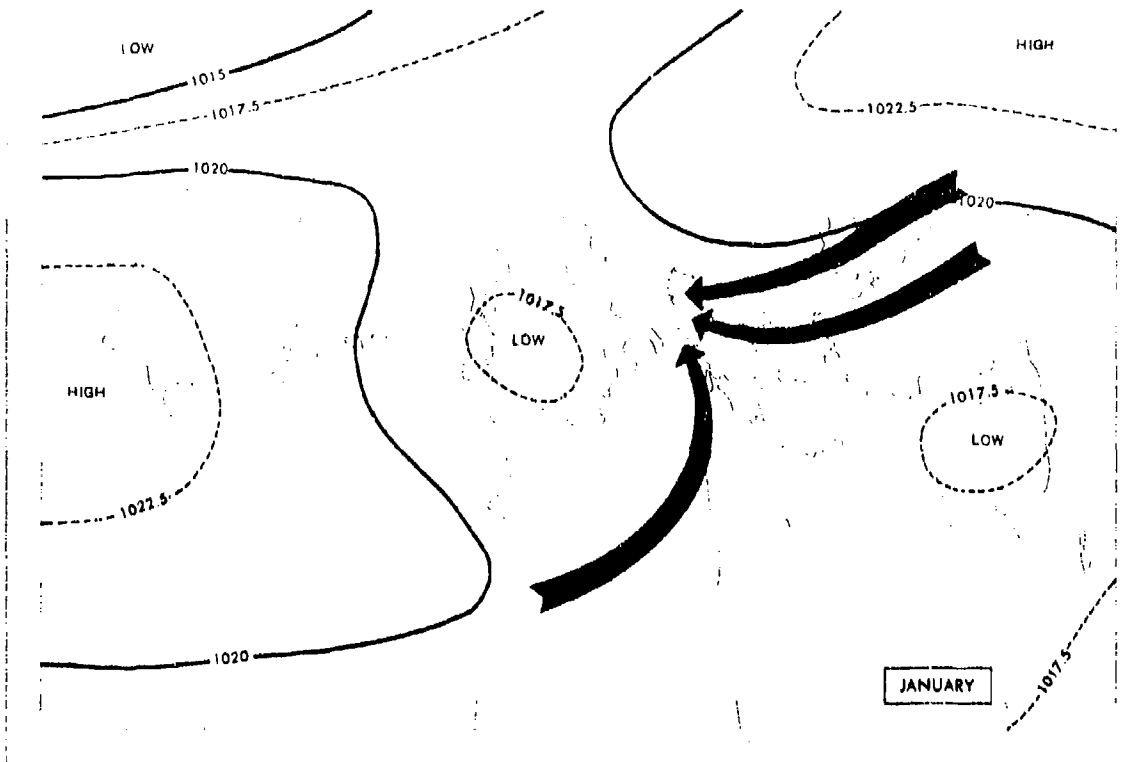


FIGURE 1. MEAN SEA-LEVEL PRESSURE (MILLIBARS) AND GENERALIZED SURFACE AIRFLOW, JANUARY

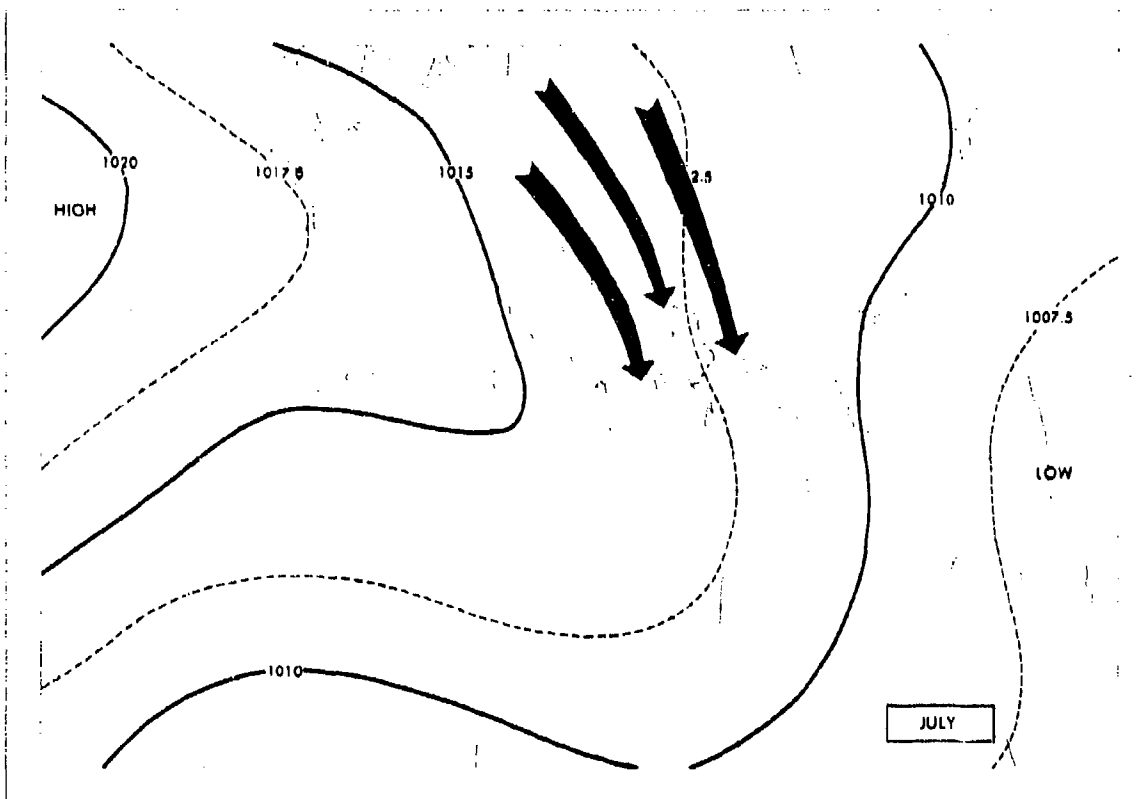


FIGURE 2. MEAN SEA-LEVEL PRESSURE (MILLIBARS) AND GENERALIZED SURFACE AIRFLOW, JULY

these systems is greatest during the winter months. Cyclonic activity is also quite prevalent in the transition seasons. During summer, however, Albania is rarely affected by depressions, since their mean tracks are much farther north; those that do occur are weak thermal lows, and the attending weather is seldom adverse. Some of the storms which affect the Area are of Atlantic origin while others develop in the Mediterranean, North Africa, or the Adriatic. In general they move from west to east as shown in FIGURES 3 through 5. Two types of storm tracks are presented: primary and secondary. The primary tracks, which are indicated by solid lines, are more frequent, less variable, and better defined than the secondary tracks which are denoted by dashed lines. The tracks indicate only the paths that centers of low-pressure cells follow and in no way represent the limits of storm activity.

Migratory high-pressure cells, known as highs or anticyclones, also affect the climate throughout the year. Anticyclonic activity, which is prevalent in summer, results in widespread clear skies. During the remainder of the year, highs often follow cyclonic disturbances, bringing relatively cold, dry air into the Area with 2 or 3 days of clear skies. At times, particularly when the Siberian high extends far to the southwest, the clear skies may persist for longer periods.

c. AIR MASSES --- Albania is influenced in winter by air masses from three radically different source regions: the North Atlantic Ocean, the Eurasian landmass, and the desert regions of North Africa. Polar maritime air from the Atlantic and polar continental air from Eurasia are most often observed.

Polar maritime (*mP*) air from the North Atlantic reaches the Area by way of southern France or through the Strait of Gibraltar, primarily in the circulation of migratory depressions. The air is modified appreciably as it traverses the relatively warm waters of the Mediterranean. Both moisture and heat are added in the lower levels. The process of convection, sometimes aided by strong winds, results in the modification of the air mass to great heights. By the time the *mP* air reaches Albania many of its properties are similar to those of tropical maritime (*mT*) air. Cloudy, showery weather and low, ragged ceilings are characteristic of this *mP* air, particularly when it arrives over the Area behind active cold fronts. The instability of this air results in much turbulence and in heavy precipitation, particularly on the western slopes of mountain ranges which lie in the path of the airflow.

The polar continental (*cP*) air that reaches Albania in winter is primarily from the circulation of the Siberian high when it extends southwest-

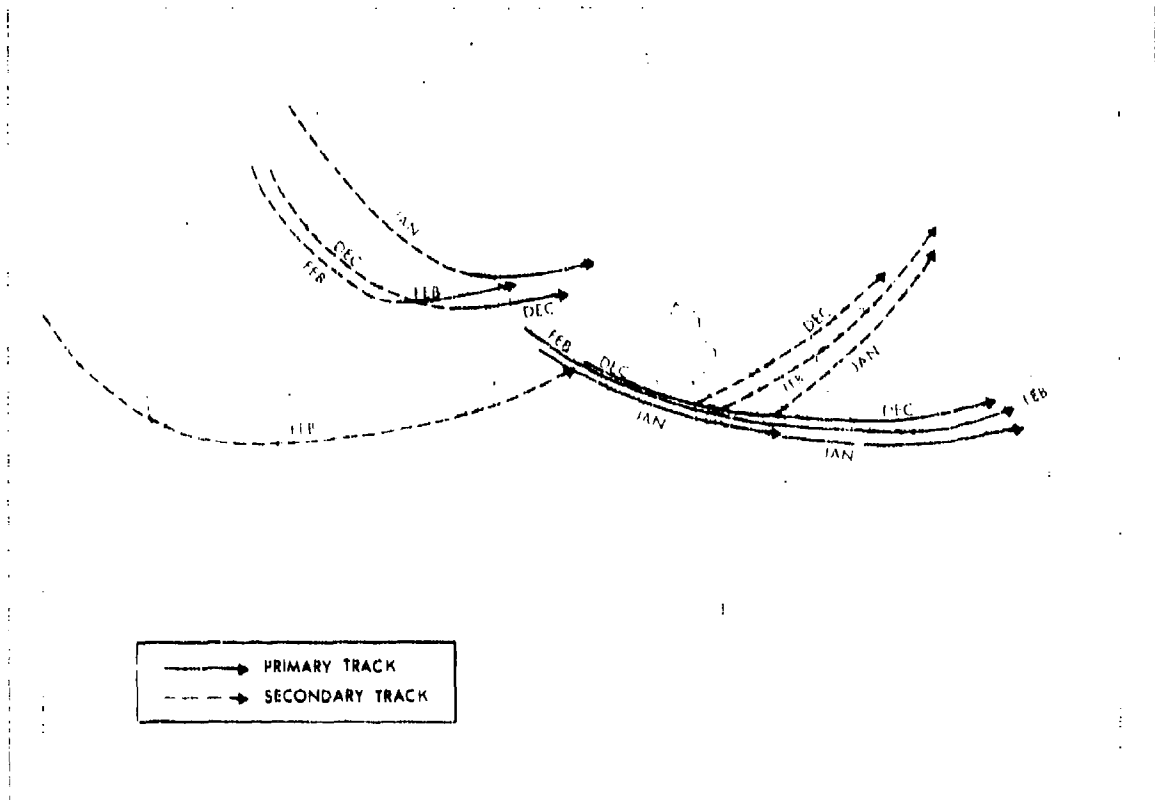


FIGURE 3. PRINCIPAL TRACKS OF CYCLONIC STORMS, DECEMBER-FEBRUARY

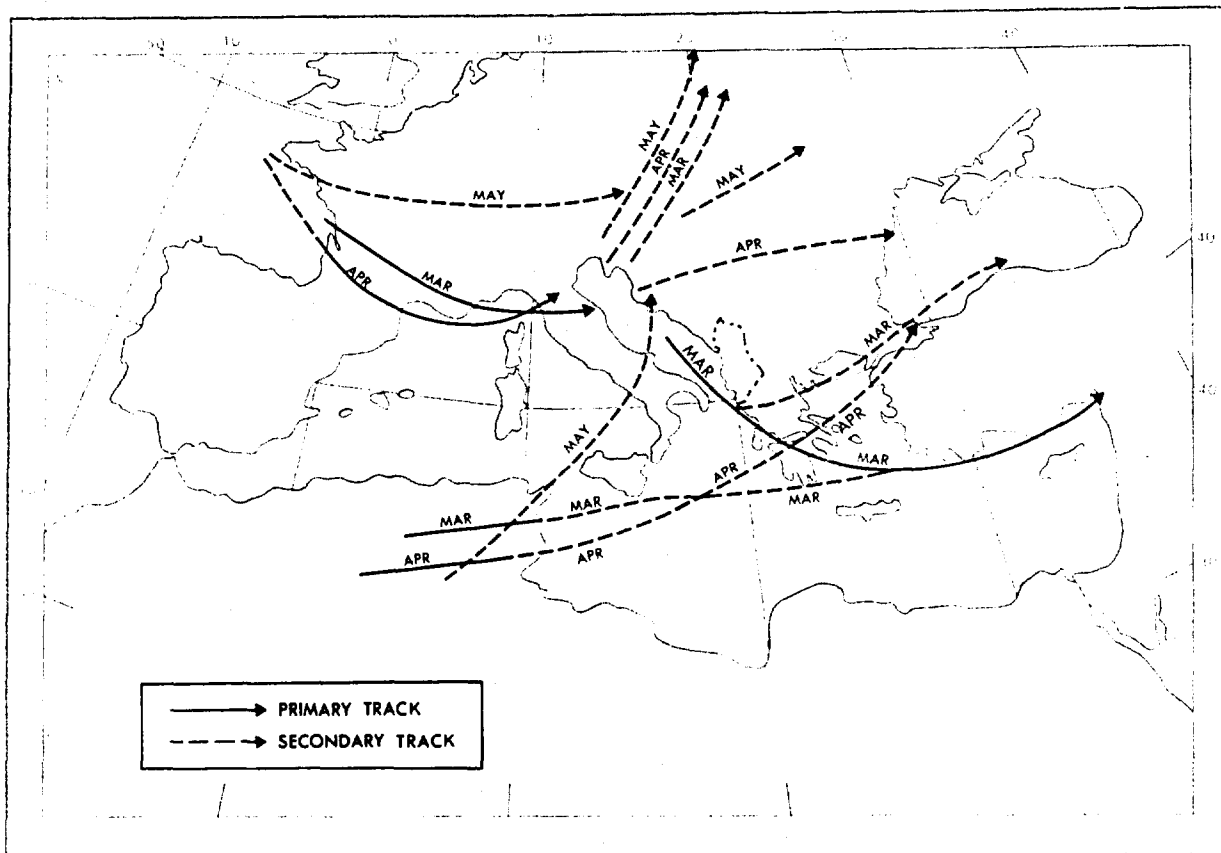


FIGURE 4. PRINCIPAL TRACKS OF CYCLONIC STORMS, MARCH-MAY

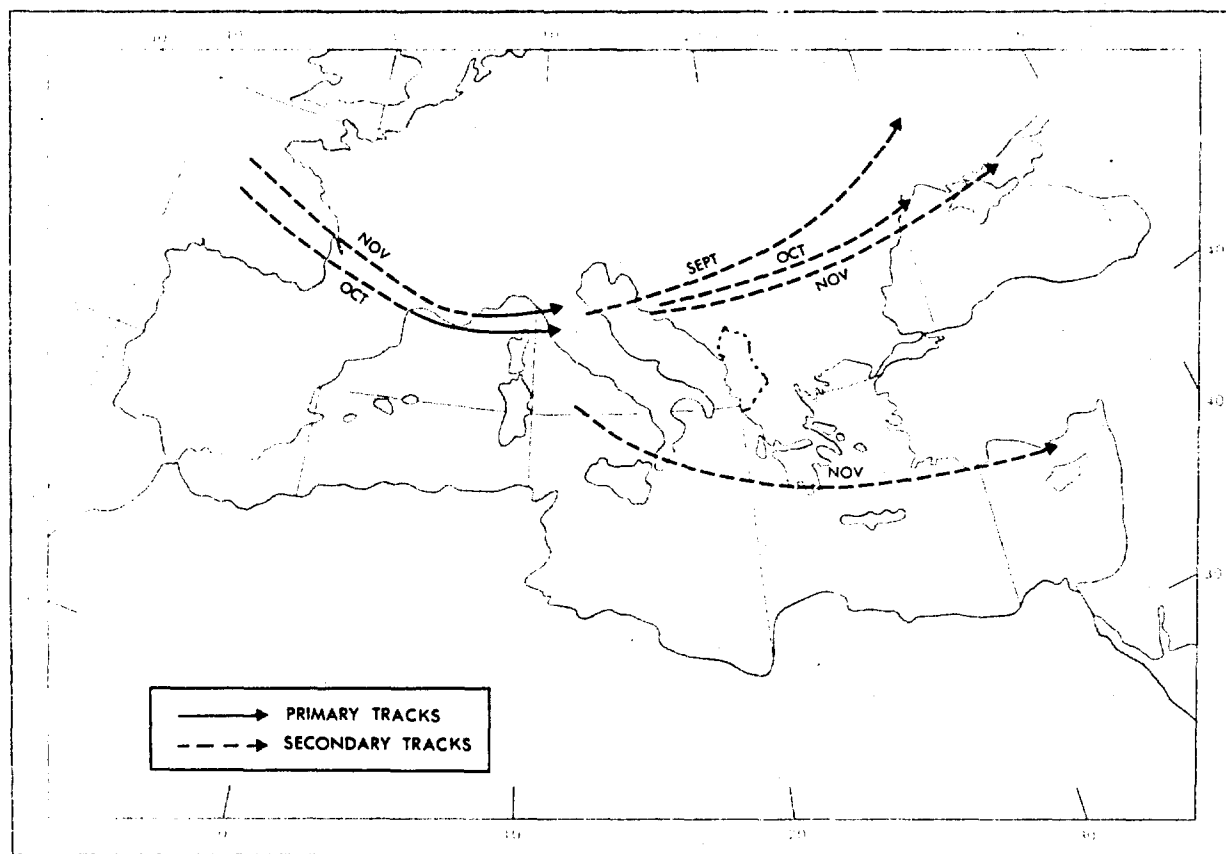


FIGURE 5. PRINCIPAL TRACKS OF CYCLONIC STORMS, SEPTEMBER-NOVEMBER

ward over the Balkans. This air is severely cold and dry at its origin in the intense Siberian high, but much modification takes place as the air traverses its long path into the Area. The air is warmed considerably as it descends the mountain slopes of southwestern Asia and flows across the Black Sea or Aegean Sea; it reaches Albania as a relatively cold, dry air mass.

In winter, the warm sector of most Mediterranean cyclones is composed of tropical continental (*cT*) air. This air originates in the deserts of North Africa as a hot, dry, and sometimes dusty air mass, but it is cooled and much moisture is added as it is drawn northward across the Mediterranean Sea. The *cT* air is warm and humid at low levels as it arrives over the Area in advance of the eastward moving depressions, usually bringing considerable low cloudiness and heavy rain. This air mass appears to enter Albania most often in spring.

In summer, tropical continental (*cT*) air is most prevalent over Albania, reaching the Area from Eurasia as a hot and dry air mass. The flow of dry continental air is seldom interrupted, resulting in high temperatures, clear skies, and very little rainfall. Because of the pressure and wind distribution, *cT* air originating in North Africa rarely enters the Area in summer.

d. TOPOGRAPHY — The mountains both within and without Albania determine to a large extent the climatic variations. Rugged mountains to the north and northeast of the country act as a barrier to the often severely cold air masses from central Eurasia. On occasions when the cold air overruns the mountains, the passage over the high terrain noticeably warms and dries the air. Many mountains are situated across the major air currents. These mountain barriers tend to impede the flow of cold, continental air across the Balkan Peninsula and frequently prevent severely cold air from reaching coastal regions, particularly in the south. Similarly, the movement of warm, moist air from the adjacent seas is often retarded, limiting the maritime influence over the interior.

Many variations in the climate exist as a direct or indirect result of terrain features. Differences in elevation and in the pitch and direction of slopes may cause marked variations in the temperature, wind, cloudiness, precipitation, and other elements. Cold air often becomes trapped in mountain valleys thereby causing valley floors to be much colder than the mountainsides. Orientation of mountain slopes to the sun also affects the amount of insolation received. Because of the temperature difference, snow remains on the shady slopes long after it has disappeared from the sunny slopes. Mountains strongly influence the winds near the earth's surface. Wind directions at various locations are very local, being al-

tered by the configuration of mountains and valleys, which give rise to certain types of winds. Mountains are often very effective in causing or aiding the ascent of air, thereby increasing cloudiness and precipitation on the windward side. On the other hand, lee sides of mountains, at times, have few clouds and little precipitation because of the warming and drying effect on the relatively cold descending air.

e. OCEANIC AND LATITUDINAL INFLUENCES — The effects of the adjacent seas are felt mostly in the coastal lowlands, foothills, and on the westward facing slopes of mountains nearest the sea. As discussed previously, air masses reaching Albania across the water areas are considerably modified, often resulting in added cloudiness and precipitation. Characteristic local effects are produced by the temperature difference between land and sea. Coastal land temperatures are moderated appreciably in summer by the cooler sea waters. In winter the cold land surfaces along the coast are warmed by the relatively warm waters of the adjacent seas. Land and sea breezes, which are common near the coast, particularly in summer, are induced by diurnal temperature changes resulting in differences of land and sea temperatures.

The latitudinal influence in this NIS Area is not significant since the country is small and the north-south extent covers only about 3 degrees of latitude.

### 3. Special phenomena

Special weather phenomena of a catastrophic nature are seldom recorded in Albania. There is minor damage from strong winds, flash floods, thunderstorms, hail, and heavy snowfall in the mountains, but widespread destruction of the type commonly associated with hurricanes is relatively unknown. However, some unusual meteorological phenomena are observed in the Area.

The *bora*, a strong cold wind, usually blows from the northeast and occurs most often in winter, although it may occur in any month. It results from the difference in pressure between a high over the interior of the Balkan Peninsula and a low or trough over the Adriatic Sea. The onset of this wind is sudden and squally, sometimes accompanied by violent gusts and very heavy rain or snow. Its persistence is variable; in some cases the wind decreases shortly after its onset, while at other times its duration may be from a few hours to several days. Although the *bora* reaches almost all of Albania, it is most pronounced and frequent in the north. At times communications and transportation facilities may be interrupted, particularly in the northern mountains. The natives of these mountains do not normally travel during the *bora* because of the danger involved. In the agricultural sections, the *bora*, because of

its strength and the attending low temperatures, sometimes causes great damage to agriculture, especially in the spring when the crops begin to grow and ripen.

The *foehn* wind is experienced locally on the lee sides of mountain ranges. It is caused by cold air draining down mountain slopes through gravity. Because of adiabatic compression the downrushing air arrives at lower levels much warmer and drier, often contributing to rapid snow melt. The wind speed is often increased by channeling through narrow valleys or gorges, and the direction of flow is usually dependent only on the orientation of the local terrain.

The *sirocco* is another wind which is of considerable importance in Albania. It blows mainly in the colder half year, but has been known to occur in summer. The *sirocco* is most often a relatively warm and humid southerly wind, usually blowing in advance of eastward moving cyclones. The air is hot and dry when it originates in North Africa but is significantly modified by the time it reaches Albania, bringing widespread low clouds and heavy rain. Occasionally, especially when it occurs in summer, the *sirocco* may retain many of its original characteristics and arrive on the shores of southern Albania as a comparatively hot, dry, and sometimes dust-laden wind. Unlike the *bora*, the *sirocco* begins gently and gradually attains full strength. Wind speeds are quite strong when fully developed, sometimes reaching gale force (wind speeds equal to or greater than 28 knots). The *sirocco* is not as violent as the *bora*, but it may persist for considerably longer periods. Although the *sirocco* affects most parts of Albania with clouds and rain, its main force is felt in the south and along the mountain slopes facing the coast.

Heavy rainfall and rainshowers constitute much of the precipitation received in Albania. As a result, flooding occurs at various locations throughout the Area. Lowlands adjacent to mountains are often flooded by heavy rains since underground caverns and river beds quickly fill and water pours out on the basins and flat lands. The danger is greatest in sections composed of steep slopes with narrow drainage channels, especially where trees are sparse. Within a few hours, torrents fill the dry water beds, and heavy debris may be hurled downstream by the rushing waters. During the heaviest floods, roads may be washed out and communication lines torn down, significantly interrupting cross-country travel and communication. Spring thaws of snow in the mountains may also cause some local flooding.

Droughts occur over most of the Area in summer, the period of minimum rainfall. They are most frequent and severe in the south, particularly along the coast. These droughts may create

considerable hardship, especially for those whose livelihood depends almost entirely on farming.

The Area may experience occasional duststorms, which are most likely to occur in the south during severe summer droughts. Duststorms are strong dust-laden winds and are sometimes quite extensive. They are normally associated with the infrequent summer *sirocco* or with strong winds of local origin, usually reducing visibility for only a short time. Dust devils are also observed in Albania, mainly during the summer drought; they are small, usually harmless, rapidly moving spirals of dust, which affect a very limited area.

Information on hail occurrence is scanty and supports only a generalized discussion. Hail is not a very common phenomenon in Albania, although it has been observed in most parts. The Coast Region may experience hail in every month of the year; however, winter is the season most noted for hail. In the Interior Mountains Region, hail is usually confined to the warmer half of the year. Damage to property, particularly to crops, may be expected from time to time.

## B. Weather and military operations

This Subsection is concerned with the effects of the meteorological elements upon military operations, which are here divided into four basic groups: air, air-ground, ground surface, and amphibious. Under each group are discussed the weather elements primarily relevant to the operations in that group. However, weather elements which are considered most applicable to one basic group may also affect operations in others. In such cases, reference should be made to the appropriate Subsection. The meteorological information contained herein is organized to highlight conditions that may be pertinent factors in planning. Discussion of the effects of weather on specific operations is not attempted since the weather factor in an operation is subject to change with the changing requirements of the operation itself.

### 1. Air operations

a. **CLOUDINESS** — Cloudiness is an important factor in most air operations, even in a country such as Albania where the average amount is not great. FIGURE 6 shows graphically the regional and monthly variations in cloudiness in the afternoon, while FIGURE 10 presents in tabular form the

**NOTE** Air operations are defined as those operations taking place primarily above the frictional influence of the surface terrain on atmospheric circulation. The meteorological elements discussed in this Subsection are those which are of primary importance to such operations as high-level visual bombing, radar bombing, aerial photography, most types of aerial reconnaissance, and fighter support and interception.

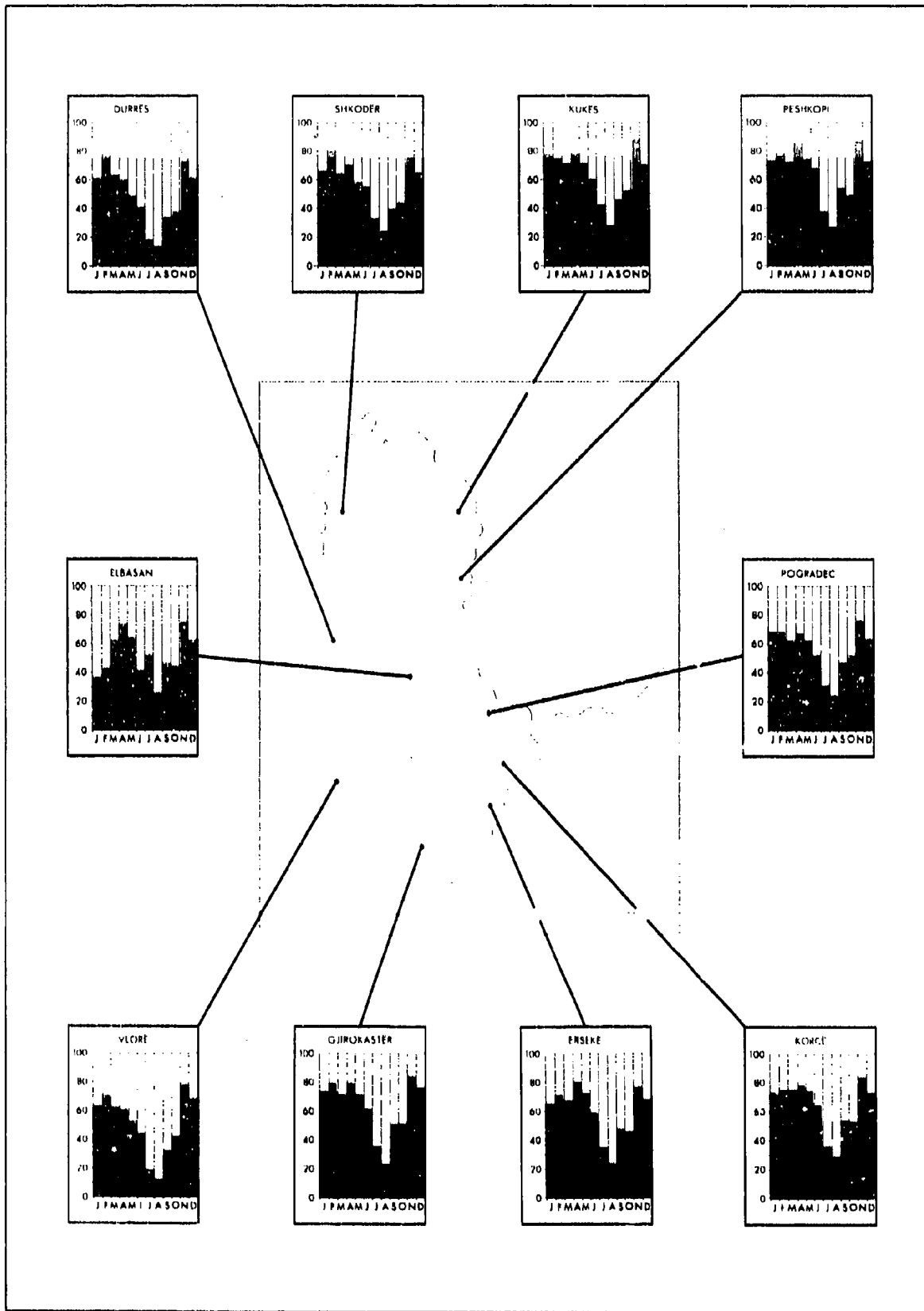


FIGURE 6. MEAN CLOUDINESS (%) AT 1400 LST. (For tabular data see FIGURE 19.)

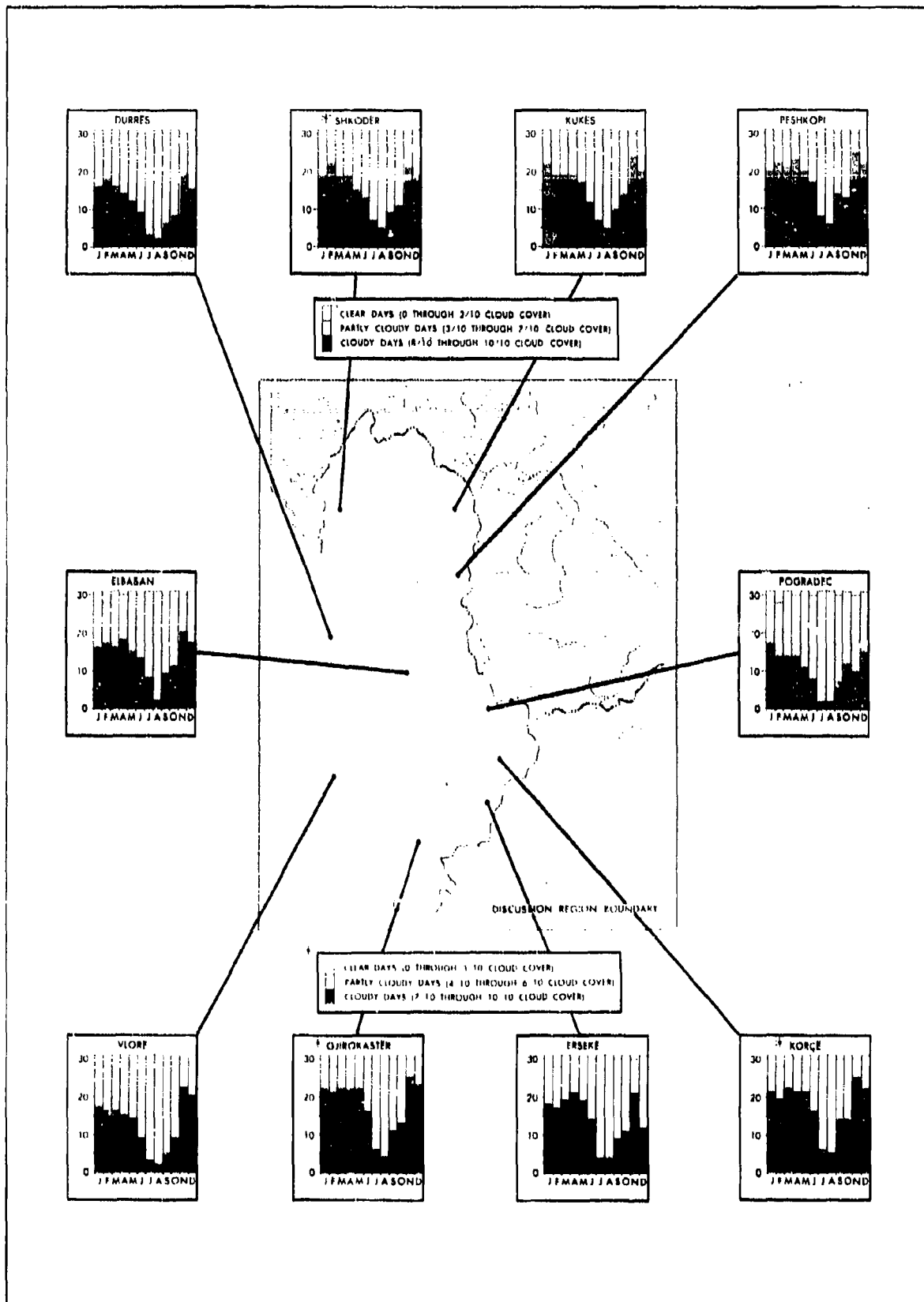


FIGURE 7. MEAN NUMBER OF CLEAR, PARTLY CLOUDY, AND CLOUDY DAYS AT 1400 LST.  
 (For tabular data see FIGURES 20 and 21.)

distribution of mean cloudiness at three hours of the day. The frequency of clear and cloudy sky conditions is also of primary concern in the planning of air operations. Data of this type are shown graphically in FIGURE 7 and in tabular form in FIGURES 20 and 21. Considering the Area as a whole, the mean annual cloud amount is slightly more than 50%. Areal variations are small, with mean annual cloudiness ranging from a low of 44% at locations in the Coast Region to 57% at places in the Interior Mountains Region. In general, cloudiness increases from west to east and from south to north. However, local terrain causes numerous exceptions to this rule; windward mountain slopes usually have considerably more cloudiness than the lee slopes and sheltered valleys. There is a pronounced seasonal variation in mean cloudiness throughout Albania. Generally, clear skies prevail in summer when cyclonic activity is at a minimum; most stations record less than 25% mean monthly cloudiness in July and August, the sunniest months. During autumn, as migratory depressions begin to affect Albania with increasing frequency, average cloudiness increases and remains rather extensive throughout winter and spring. Mean monthly cloudiness increases sharply in November and is about 50% to 80% at all locations through the month of May, when a gradual decrease towards the summer minimum becomes evident. The cloudiest months are November and February in the Coast Region, while cloudiness is usually greatest in November in the Interior Mountains Region.

The most common cloud types over Albania are stratus, nimbostratus, stratocumulus, cumulus, and cumulonimbus. The frequent migratory depressions of winter are usually accompanied by stratus, stratocumulus, and nimbostratus; some middle and high clouds such as altocumulus, altostratus, and cirrostratus are often present. Between depressions, extensive sheets of stratocumulus often form over the interior, particularly when the general windflow in the lower few thousand feet is from the north or northeast. Cumulus clouds are occasionally embedded in the stratocumulus layers. Much of the stratus and stratocumulus near the coast in winter is caused by the lift given to moist air from the sea along the westward facing slopes. Because of the greatly increased solar heating in summer, cumulus and cumulonimbus clouds are predominant in that season. Greatest vertical development of these clouds usually occurs in the mountains as the already unstable air moves up the mountain slopes. Cloud types of the transition seasons resemble those of winter except that cumuliform cloud frequency gradually decreases in autumn to reach a minimum in winter and increases again in spring.

Therefore, cumulonimbus clouds may occur in any season, although they are most prevalent in summer.

In the Coast Region the diurnal variation in mean cloudiness at the exposed coastal locations is small, frequently less than 10%. Sections farther inland, particularly near the mountains, have slightly larger variations, exceeding 25% in some months. There is no distinct seasonal pattern of diurnal changes in the Coast Region; some mountain stations experience greatest diurnal variations in summer while other locations observe largest changes in winter or the transitional seasons. Several stations have an afternoon maximum of cloudiness in summer and a morning maximum during most of the remaining months, while others maintain an afternoon maximum practically year round. In general, least cloudiness is observed at night, although a few northern locations experience a minimum during the day, mainly in spring and summer. The Coast Region usually has 20 to 30 clear days (cloud cover equal to or less than 3-tenths) per month in July and August, 10 to 20 clear days per month in May, June, September, and October, and 5 to 15 clear days in each of the remaining months.

In the Interior Mountains Region the daily range of cloudiness is generally larger than in the Coast Region. Diurnal variations of about 10% to 30% are usually experienced, with greatest ranges occurring in summer at most locations. As a rule, maximum cloudiness occurs during the afternoon; however, early mornings are cloudiest in some months from midautumn to midspring. Least cloudiness is observed mostly at night, although a few stations experience a minimum in the early morning, mainly in the warmer half year. The Interior Mountains Region generally has 15 to 25 clear days in July and August and about 10 to 20 clear days in each of the prior and succeeding two months. The remaining months usually have 5 to 10 clear days each.

The feasibility of air operations such as high-level visual bombing and aerial photography is strongly dependent upon cloud cover and visibility. A tabulation of one combination of favorable cloud and visibility conditions (3-tenths or less cloud cover with 2½ miles or greater visibility) is given in FIGURE 22. Information within Albania is limited to 1-year data for one station on the southern coast. However, data of sufficient length of record for nearby stations have been included in the figure; they are fairly representative of the Area and will support some generalized conclusions. Conditions favorable for these operations in the Coast Region probably occur on more than half of the days in June through September, with the best months, July and August, averaging about 20 to 30 days each. The seasonal pattern

for the Interior Mountains Region is probably somewhat similar to that of the Coast Region, except that the frequency of favorable conditions in the Interior Mountains is probably reduced by a few days each month.

b. THUNDERSTORMS AND TURBULENCE -- Thunderstorms occur throughout the year at practically all locations in Albania, but the frequency is generally low. The Coast Region records about 20 to 40 days with thunderstorms annually, except along the southern coast where annual totals are less than 10 days. As shown in FIGURE 23, the regional and seasonal variations of thunderstorms are not distinctive. Most months have 1 to 4 days with thunderstorms; frequencies are slightly higher in May, October, and November, with up to 7 days per month. The southern coast is an exception, with thunderstorms occurring on 1 day or less in almost all months. The Interior Mountains Region experiences fewer thunderstorms annually than the Coast Region. Most locations average about 15 to 30 days with thunderstorms each year; stations on the shores of Lake Ohrid and Lake Prespa, which border Yugoslavia, record generally less than 10 days. Maximum thunderstorm activity takes place in May through September or October, with most locations recording 2 to 5 days per month with thunderstorms; occurrences near the lakes average 2 days or less per month. During the remainder of the year, thunderstorms are generally not as frequent, occurring on less than 2 days in most months.

In winter and the transition seasons, most thunderstorm activity is associated with migratory depressions and their accompanying frontal zones. Therefore, thunderstorms may be expected at any time, day or night. Summer thunderstorms are essentially the result of convective activity and of the forced ascent of moist air up the mountain slopes. Consequently, thunderstorm frequency and intensity is probably greatest in the afternoon, during the period of strongest solar heating; this variation is most evident in or near the mountains. Because of the large temperature differential between land and sea in summer, thunderstorms along the coast may occur late in the afternoon or during the evening. The cooling effects of Lakes Ohrid and Prespa, although small, also tend to moderate afternoon convective activity at nearby stations. Thunderstorms probably account for most of the summer rainfall over the Area.

Turbulence may be encountered in any season over Albania. It is associated with thunderstorms, fronts, strong local convection, strong winds over rough terrain, and the jet stream. Turbulence, always present in thunderstorms, is probably most severe in storms associated with well developed migratory depressions, especially along the west-

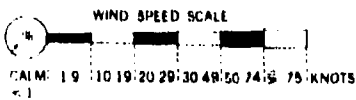
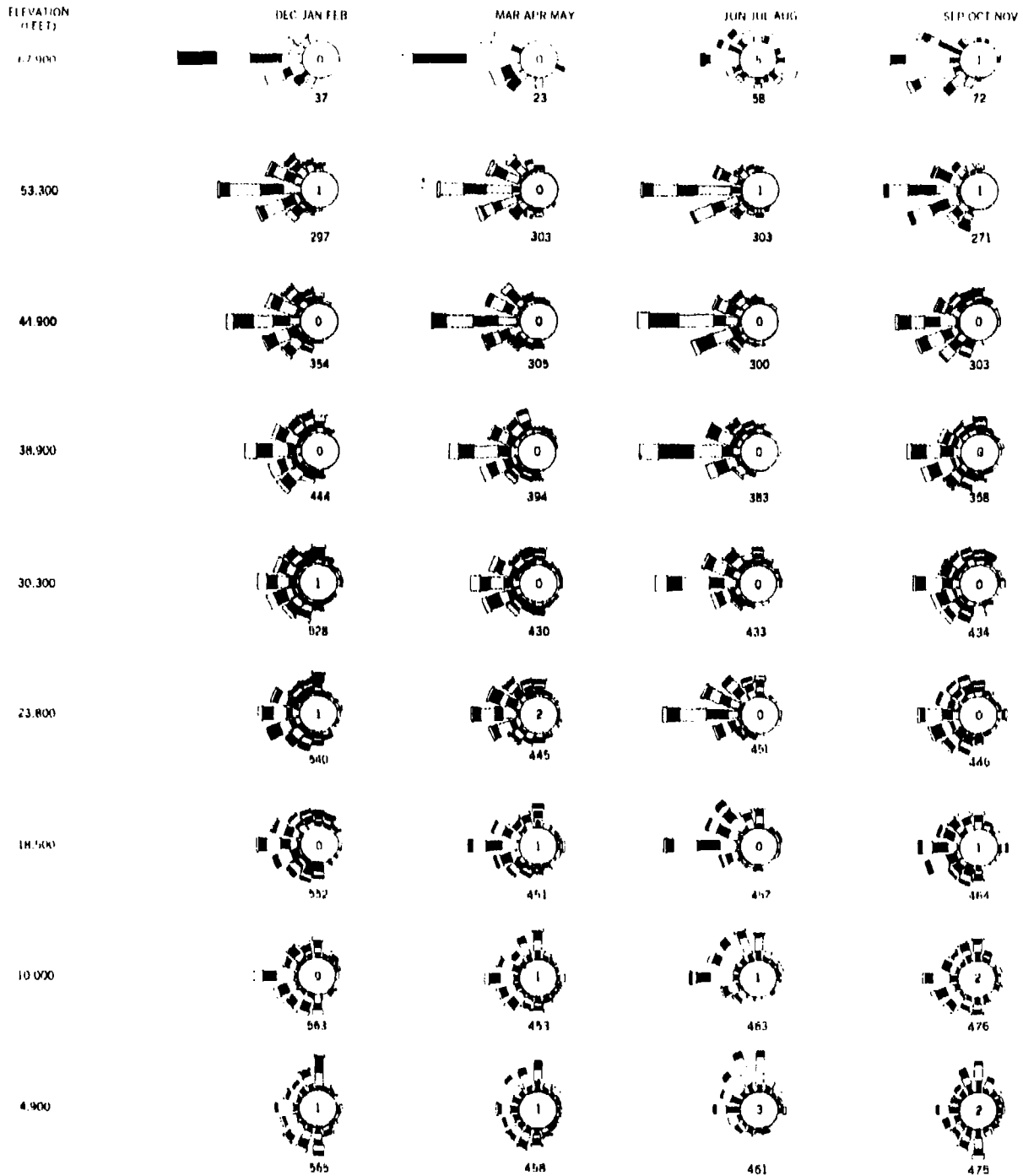
ern mountain ranges where the turbulence may extend to over 30,000 feet. Thermal turbulence, caused by solar heating of the earth's surface, is especially significant in summer. The altitude to which thermal turbulence extends is influenced not only by the elevation and character of the underlying surface and the amount of surface heating, but also by the stability of the air mass within which it occurs. Considerable low-level turbulence may be experienced over Albania, particularly in the summer when relatively cool air is heated from below during the day and thus is made unstable. At times thermal turbulence in summer may extend to several thousand feet. Orographic turbulence, sometimes severe, may frequently occur over the mountains when winds, especially in the layers 2,000 to 3,000 feet above the surface, attain high speeds. Although supporting data are not available, it is likely that clear-air turbulence associated with the jet stream may be observed at times over limited parts of the Area, usually near the level of the tropopause.

c. UPPER-AIR WINDS -- There are no upper-air wind observations available from stations within Albania; however, data for stations near the Area (FIGURES 8 through 10) are considered fairly representative of the upper-air wind distribution over the Area. Variations in the speed and direction of the upper-air winds are shown by seasonal wind roses for various selected levels. These wind roses indicate that Albania lies generally in the belt of prevailing westerly winds. The winds in the lower few thousand feet above the earth's surface are strongly influenced by the frictional effects of the underlying surface, especially in the mountains, and by the frequent migratory depressions. These influences are still evident at 5,000 feet in autumn, winter, and spring, when the wind direction is highly variable. The prevailing north to northwest flow in summer is evident. The westerlies become more apparent at 10,000 and 20,000 feet, although considerable variability remains, particularly in winter, when the migratory depressions are most frequent. Between 20,000 and 30,000 feet, the westerlies become reasonably well established and extend to at least 65,000 feet throughout the year.

In all seasons, upper-air wind speed increases with increasing altitude up to the tropopause, which varies seasonally between about 35,000 and 44,000 feet; speeds generally decrease above this level. Winter is the season of strongest winds at all levels; mean wind speeds range from about 15 knots at 5,000 feet to nearly 50 knots at 30,000 and 40,000 feet. Wind speeds are reduced somewhat in spring and reach a minimum at most levels in summer or autumn. During this period of weakest upper-air flow, mean wind speeds vary from about 10 knots at 5,000 feet to about 40

UPPER-AIR WIND ROSES

BRINDISI



NUMBER OF OBSERVATIONS INDICATED BELOW EACH ROSE

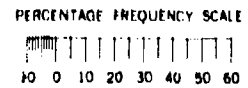


FIGURE 8. UPPER-AIR WIND ROSES, BRINDISI

UPPER-AIR WIND ROSES

KÉRKIRA

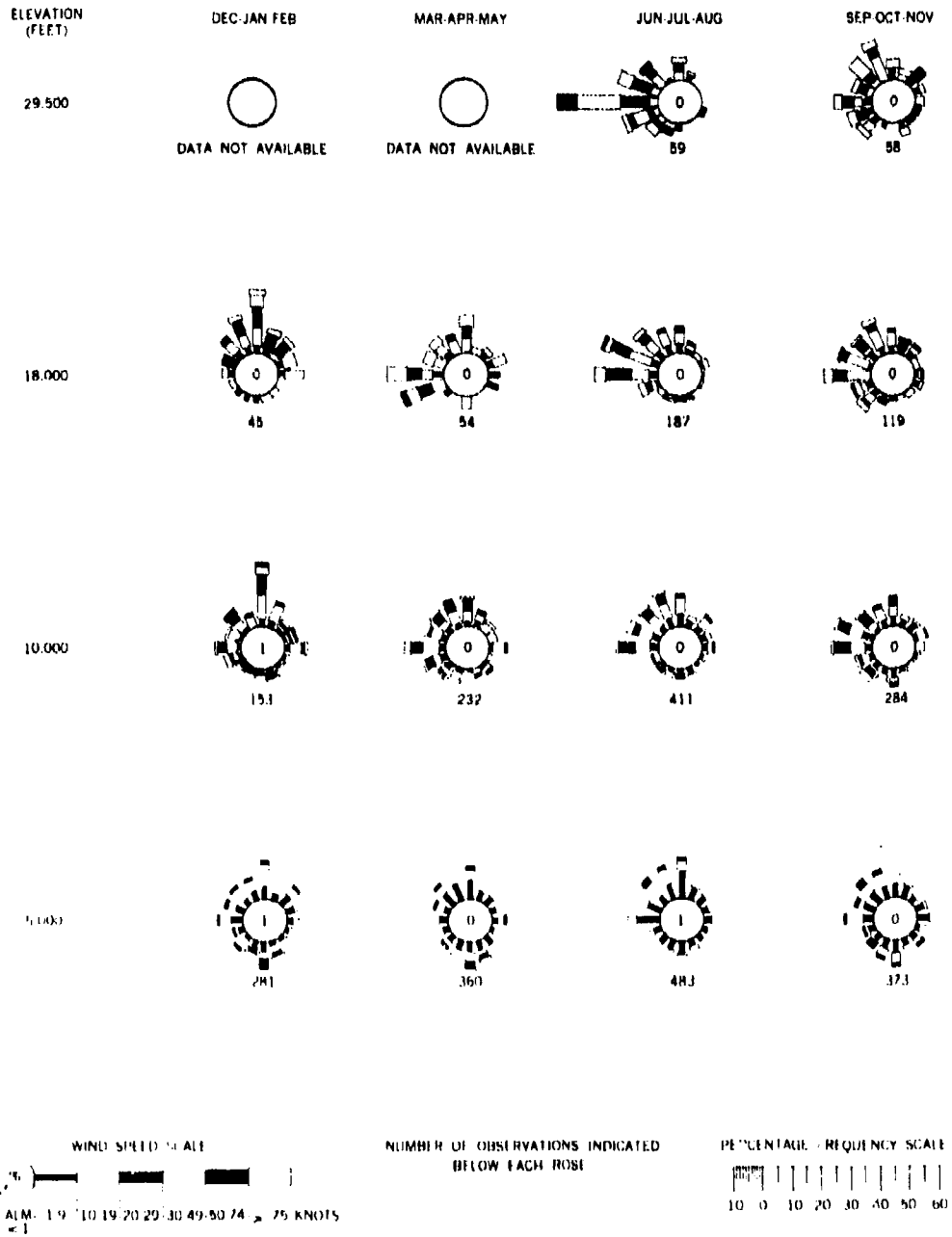
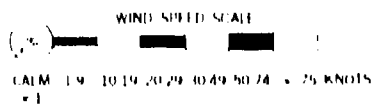
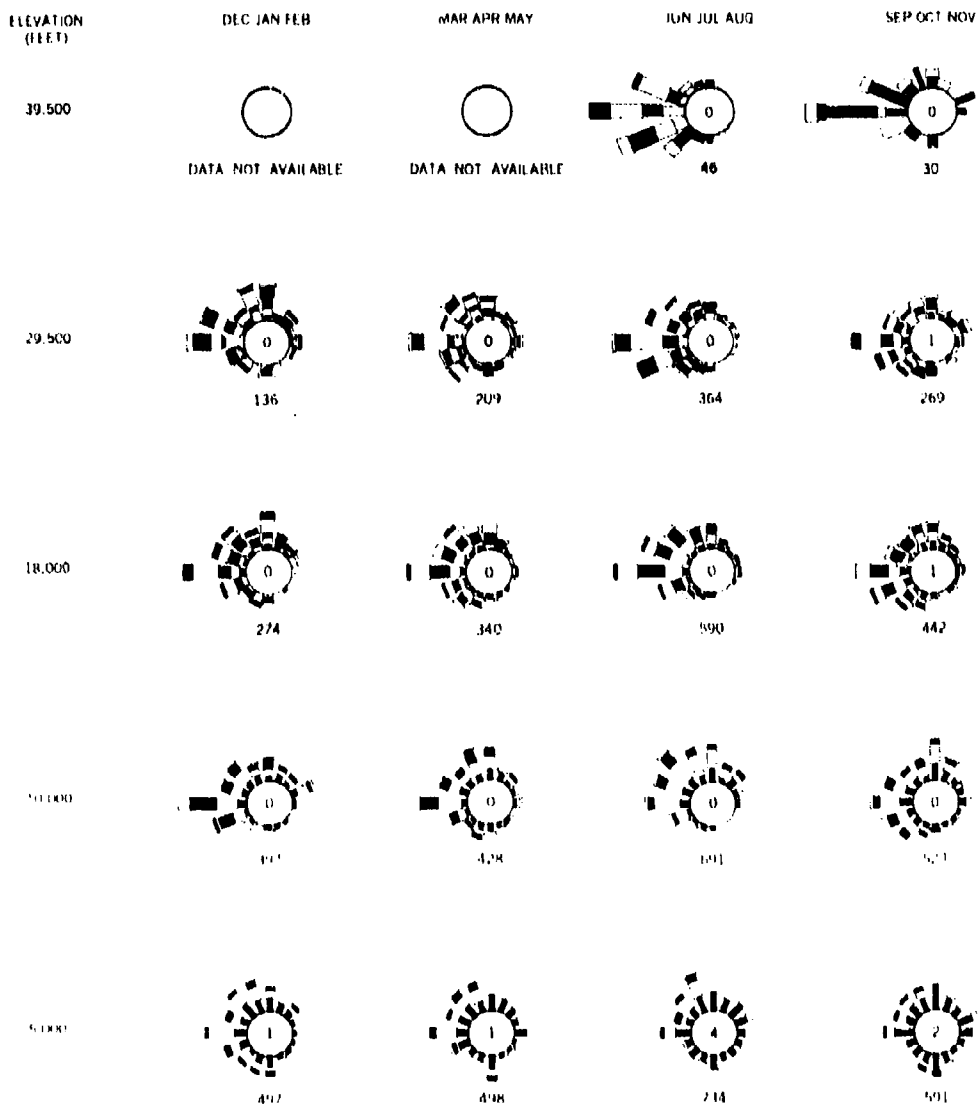


FIGURE 9. UPPER-AIR WIND ROSES, KÉRKIRA

UPPER-AIR WIND ROSES

THESSALONÍKI



NUMBER OF OBSERVATIONS INDICATED  
BELOW EACH ROSE

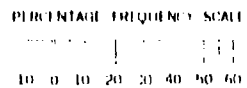


FIGURE 10. UPPER-AIR WIND ROSES, THESSALONÍKI

knots at 30,000 or 40,000 feet before decreasing at higher levels. Although mean speeds throughout the year are not high, they are appreciably exceeded at times. At the level of strongest winds, usually near the tropopause, winds in excess of 75 knots occur about 15% to 20% of the time in winter, 10% to 15% of the time in spring and summer, and 10% or less of the time in autumn. Winds exceeding 75 knots are rare below about 20,000 feet, in all seasons.

d. UPPER-AIR TEMPERATURES AND AIRCRAFT ICING — Upper-air temperature data for Albanian stations are not available. Figure 11 presents the monthly variations of temperature, constant pressure surface height, and tropopause height in the upper atmosphere at Brindisi, a station near the Area. The upper atmosphere at this station is considered to be reasonably representative of that over Albania. The lack of areal coverage precludes discussion by region, but it is believed that regional variations are small. In midsummer the mean monthly temperatures aloft exceed those for midwinter by about 10 to 15 Celsius degrees up to about 40,000 feet. Above this level the seasonal range is much less and near 50,000 feet is reversed, with temperatures in winter becoming slightly warmer than in summer.

The mean freezing level ranges from about 5,000 feet above sea level in midwinter to near 13,000 feet in midsummer. Therefore, in the cold months the mean freezing level is at the surface at mountain locations above about 5,000 feet. However, the actual daily height of the freezing level may vary by several thousand feet from the mean height, reaching the surface at times even in the coastal lowlands. Aircraft icing may

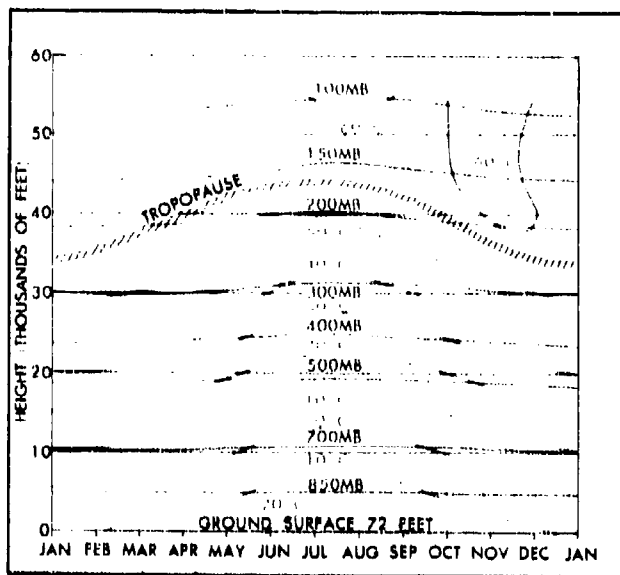


FIGURE 11. MEAN MONTHLY UPPER-AIR TEMPERATURES AND PRESSURES AT BRINDISI

be encountered over Albania under certain conditions. Icing to some extent should be expected in any part of the year when sufficient moisture is available and the free-air temperature is between 0° and -15° C. The -15° C. isotherm extends from approximately 13,000 feet in winter to 20,000 feet in summer. Therefore, the 7,000 to 8,000-foot layer between the 0° C. and -15° C. isotherms is the one in which icing is most likely to be encountered. The moisture content of the air is generally too low to produce appreciable icing at heights above the level of the -15° C. isotherm. Aircraft icing hazards would be most frequently encountered in late autumn through early spring, the period of frequent migratory depressions and fronts with accompanying widespread cloudiness often extending vertically through the freezing zone. The most severe icing conditions will occur over the mountains, particularly along the western slopes during frontal passages; severe icing hazards may extend to great heights in cumulonimbus clouds. The icing hazard is considerably reduced in summer when the amount of cloudiness is relatively small and the freezing level much higher. The threat of severe icing is always present in thunderstorms, regardless of the time of year, but it is strongest during the colder months.

The mean height of the tropopause ranges from about 35,000 feet in winter to about 43,000 or 44,000 feet in summer. There is some evidence of a second tropopause existing above 50,000 feet but the lack of supporting data preclude any definite conclusions.

## 2. Air-ground operations

a. LOW CLOUDINESS AND CEILINGS — Tabular data concerning low clouds and ceilings are not available for this NIS Area. Frequencies of cloud ceilings below about 1,000 and 5,000 feet have been included in Figure 24 for stations near but outside Albania; these will suffice only for very general discussion.

All available information indicates that low ceilings in much of the Coast Region are infrequent the year round, with peak frequencies of ceilings

**NOTE** Air-ground operations are defined as those operations taking place within the friction layer above the earth's surface, or those primarily influenced by the meteorological conditions existing within that layer. The meteorological elements discussed in this Subsection are those which are of primary importance to such operations as parachute drops, chemical and biological warfare, tactical support, low-level reconnaissance, and air rescue. The success or failure of many of these operations may also depend to a large degree upon the behavior of elements above the friction layer or near the surface. A detailed discussion of such elements may be found in Subsections B, 1 and B, 3.

below 1,000 feet probably near 10% in the worst winter months. However, in the foothills of the mountains and along the windward slopes, low ceilings may occur considerably more often. This is especially true in the colder months when clouds pile up against the mountains and at times completely obscure higher locations. The data indicate a probable occurrence of ceilings below 5,000 feet on about 20% of the observations in the south and about 45% in the north in the cloudiest winter months. Because most low clouds in the cold months are usually associated with passing depressions and fronts which can occur at any time during the day or night, the diurnal variation of low ceilings is probably not significant. Conditions are generally improved in summer. Ceilings below 1,000 feet are rare except possibly along the mountain slopes in the afternoon when convective activity is greatest. Ceilings below 5,000 feet apparently would be reported on less than 10% of the observations. Mountain slopes may experience higher frequencies in the afternoon.

The Interior Mountains Region is believed to have generally greater frequencies of low ceilings than the Coast Region. In the worst winter months, the frequencies of ceiling below 1,000 feet are probably less than 15% except on the windward mountain slopes which may often be obscured by low clouds. Ceilings below 5,000 feet during the winter months are indicated about 20% to 50% of the time in the south and about 60% to 75% in the north. As in the Coast Region, the diurnal variation of low ceilings is probably slight.

In summer, with almost complete cessation of cyclonic activity, conditions are much improved. Ceilings below 1,000 feet are rare; those that do occur would normally be associated with heavy cumulus or cumulonimbus clouds during the hottest part of the afternoon and are short lived. The available information suggests that ceilings below 5,000 feet are infrequent in the south, usually being reported on less than 15% of the observations. There is some evidence of significantly increased frequencies in the north, ranging as high as 20% in the morning and over 50% during the afternoon at some locations.

b. VISIBILITY — Tabular information on the various visibility ranges are not available for stations in Albania. FIGURE 25 gives the frequency distribution of three visibility ranges for several stations near but outside this NIS Area. These data are, to some extent, indicative of conditions to be expected in Albania and will support limited conclusions.

In general, visibility in the Coast Region is fairly good. The worst conditions can be expected in the cold months during the passage of depressions. The frequency of visibility below

1¼ miles in these months is probably less than 10% at most locations. Visibility is below 6 miles more frequently, probably as much as 25% of the time. During summer, visibility below 1¼ miles is rarely expected, less than 1% or 2% of the time. Restrictions of visibility to less than 6 miles may occur up to about 10% of the time. The visibility pattern in the northern part of the Interior Mountains Region appears to be very similar to that of the Coast Region. In the south, however, there is evidence of appreciably greater frequencies of restricted visibility at some mountain locations. No very definite pattern of diurnal variations can be derived from the available information. It is believed, however, that winter variations are small, since adverse weather accompanying migratory depressions is the major cause of restricted visibility and may occur at any time, day or night. In summer, diurnal changes are expected to be more prominent depending on location and cause.

FIGURE 26 gives tabular data on the mean number of days with fog for several stations in and near Albania. In general, the data show fog occurrence to be most frequent in the cold months during the morning hours; it is reported up to 5 days per month over most of the country. Frequencies are higher in the southern coastal mountains where it is observed on about 10 mornings in both October and November. Fog is at times associated with the passage of depressions and their accompanying fronts. However, during quiet periods when anticyclonic conditions prevail, it may form in low places during the night, especially in closed mountain valleys, but usually disperses shortly after sunrise. In summer, fog is observed on 1 day or less per month at all locations. This is normally radiation fog that forms during quiet, clear nights after an afternoon of thunderstorms; it normally disperses during the morning shortly after sunrise. Regional variations are not significant. Poor visibility at the higher mountain stations is often caused, particularly in winter, by low clouds which obscure the mountain slopes and ridges. Heavy rain frequently restricts visibility in the cold months and occasionally in summer thunderstorms. At times, snow lowers the visibility for brief periods, especially in the mountains; at high elevations in the north, snow may hamper visibility for extended periods in some winters. Dust may also restrict visibility over parts of the Area, particularly during the summer droughts in the south. Heat shimmer distorts visibility to some extent in summer over various parts of the Area during the hot afternoons.

c. COMBINED CEILING AND VISIBILITY — In the absence of combined ceiling and visibility data for Albania, data for several stations nearby are sub-

mitted in FIGURE 27. These data will give a reasonable idea of conditions expected in the Area. They indicate that there is no great problem in Albania for operations requiring good ceilings and visibilities. In general, the worst conditions occur in winter and the best in summer. In the Coast Region, combinations of very low ceiling and poor visibility probably occur less than 10% of the time at most locations even in winter. These conditions are rare in summer. In the Interior Mountains Region very low ceiling and visibility combinations may be expected considerably more often. However, because of terrain, these adverse conditions may be more localized and variations

more marked. At nearby stations in the south, ceilings less than 656 feet and visibility less than 1 1/4 miles have been reported on as many as 20% of the observations in winter. Summers should be much improved, with most locations infrequently having such adverse ceiling and visibility conditions.

d. SURFACE WINDS — The surface winds in Albania are influenced by several factors, such as large-scale semipermanent pressure systems, migratory lows and highs, and, probably most important, variations in the terrain. FIGURES 12 and 13 present surface wind roses for all stations for which reliable data are available. Local effects are

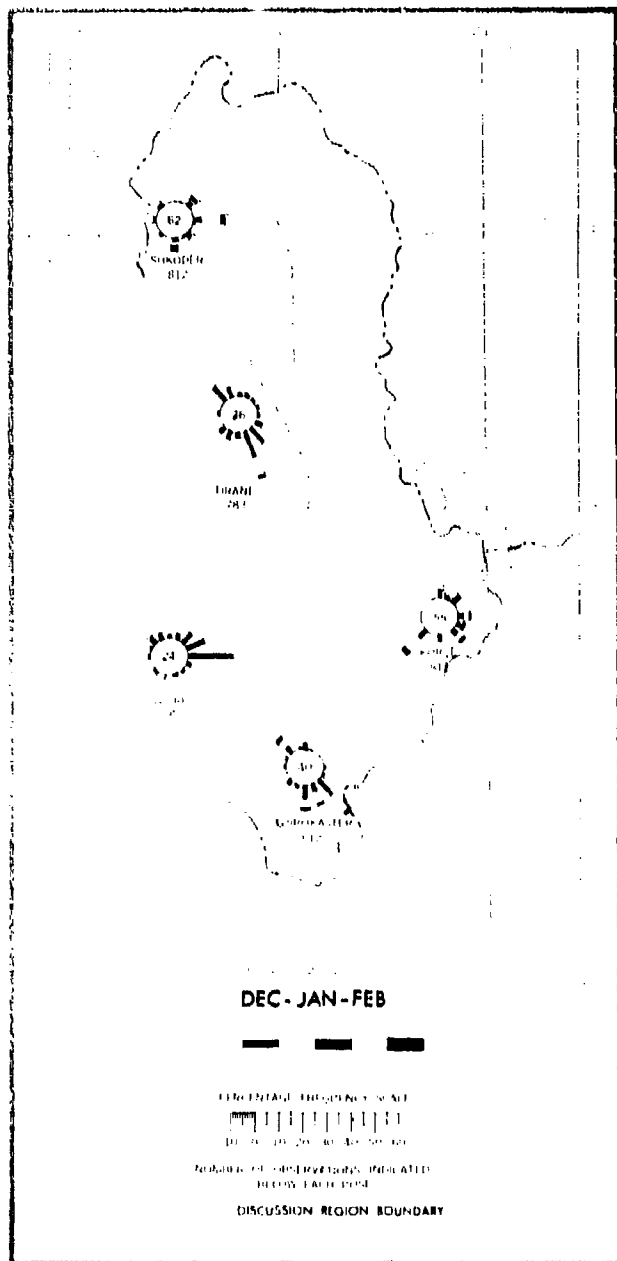


FIGURE 12. SURFACE WIND ROSES, DECEMBER-FEBRUARY

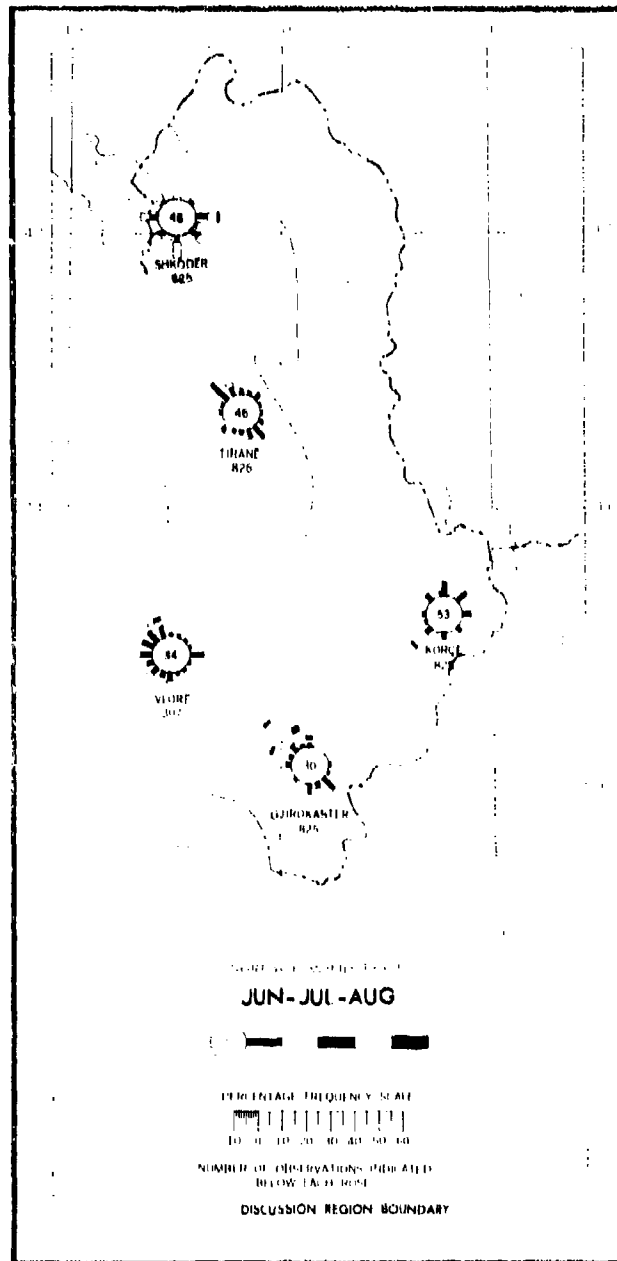


FIGURE 13. SURFACE WIND ROSES, JUNE-AUGUST

prominent in this NIS Area; therefore these wind distributions are often representative of only the locality of the indicated station rather than a larger part of the country; this is especially true in the Interior Mountains Region. The frequency of gale-force winds (winds equal to or greater than 28 knots) is given in tabular form in **FIGURE 28**.

Over the Coast Region during winter the strong influence of the Siberian high can be seen in the prevailing east and southeast winds. Wind speeds are below 7 knots on about 70% to 80% of the observations and below 17 knots on more than 95% of the observations at most locations. Winds occasionally reach gale force over most of the region; these strong winds are often associated with the bora or sirocco. Exposed coastal locations usually experience the greatest frequency of gales. Calm conditions are observed about 35% to 60% of the time at inland stations and about 25% of the time along the coast. During summer in the Coast Region the prevailing surface wind direction shows the influence of the Azores high in the northwest winds which prevail over much of the region. Local effects overpower this influence at Shkodër in the northern part where winds from the southern quadrant prevail. Generally, over the region the frequency of speeds below 7 knots ranges between about 50% and 80%. Speeds below 17 knots are observed over 95% of the time. Gales are infrequent during this season and are confined mostly to the afternoon. Calms are reported on about 50% of the observations in the north and about 30% in the south.

In the Interior Mountains Region the rugged terrain has considerable effect on both direction and speed of surface winds. Local topography produces a great diversity of local currents and eddies, air currents generally tending to follow the valleys. Depending on factors such as location, exposure, and elevation, stations even within short distances of each other may have marked differences in wind direction and speed. Therefore it is impossible to generalize wind distribution over the region as a whole. Available information at valley stations indicates infrequent gales throughout the year; they occur on 2 days or less even in the worst winter and spring months. However, these data are representative only in the vicinity of the observing station. Thus, gales are appreciably more frequent at some other locations, particularly in high passes and on exposed mountain tops. During the bora, gale speeds are frequent in some passes. Available data concerning wind distribution are limited to Korçë in the south. Although direction is quite variable, southwest

winds are prevalent in winter and summer. Observed wind speeds are below 7 knots about 75% of the time and below 17 knots over 95% of the time in both seasons. Calms occur on about half of the observations.

Land and sea breezes are frequent along the coasts during the summer months. The sea breeze is especially welcome in summer for its moderating effect on the high temperatures. It usually sets in about 1000 LST, increases throughout the day to reach maximum strength in the afternoon, and ceases about sunset. Strengthened somewhat by the general circulation, the sea breeze may at times penetrate deep into the interior. The land breeze, usually much weaker than its counterpart, begins during the late evening and ceases about sunrise. Locally, especially in the Interior Mountains Region, light mountain and valley winds often occur, with the winds blowing down the valleys at night and up the valleys in the daytime.

Several types of air-ground operations are dependent upon combinations of climatic factors which include surface winds. The frequencies of three such combinations are given in **FIGURES 29 through 31**. These data may be used to approximate the feasibility of some types of incendiary bombing, chemical warfare, and parachute operations.

**e. STABILITY AND LOW-LEVEL TEMPERATURE INVERSIONS** — Stability of the air near the surface of the earth may be important to the success of various air-ground operations. Stable conditions are probably most frequent during summer nights, especially over the interior, when the Area is dominated by a high-pressure cell. The winds are then light and clear skies are prevalent, conditions generally ideal for the formation of a low-level temperature inversion. Less frequent but possibly more pronounced inversions occur in winter during periods of clear skies attending the presence of high-pressure cells over the Area. In each season, during the night, the temperature of the air near the ground may be lowered considerably through radiational cooling while the air above remains quite warm. This relatively cool layer of stable air tends to resist all vertical mixing. Fog may occur if sufficient moisture is present, and smoke or other contaminants in the denser surface layer tend to remain there. As the lower layers are warmed after sunrise, the air loses this stability and vertical mixing takes place between the upper and lower levels; fog and other contaminants are then dispersed. Passing depressions in winter act to destroy or prevent the formation of temperature inversions.

### 3. Ground surface operations

a. TEMPERATURE — Albania on the whole has hot summers and mild winters, typical of Mediterranean climate. The moderating effects of the adjacent seas are felt throughout the year, particularly near the coast, with the land surfaces being cooled in summer and warmed in winter. The continental influence on the winter temperature regime of the interior is moderated to some extent by this sea influence, but probably to a much greater extent by the warm air sometimes carried far inland by the siroccos. The terrain has marked effects on temperature in all seasons, affecting both the large airflows and the local regimes. FIGURE 14 shows temperature regimes for selected stations in graphic form. Tabular listings of additional data appear in FIGURES 32 and 33. Generally, regional variations are not great and are probably most pronounced in winter. On the other hand, seasonal and diurnal variations are significant.

Over the Coast Region, summer temperatures are considerably moderated by the relatively cool sea air during the day, especially in the afternoon when the sea breeze is strongest. Consequently, mean daily maximum temperatures are always below 100° F. even in the hottest summer months. They usually vary between about 75° F. and 90° F. in summer at exposed coastal stations and average about 5 Fahrenheit degrees higher at inland locations. However, inland foothill stations in the Coast Region may experience somewhat lower temperatures, as exhibited by Pukë where mean daily maximums in summer range from 70° F. to 78° F. Nocturnal radiational cooling is counteracted on the coast by the warmth of the almost constant temperatures of the adjacent seas. Therefore, mean daily minimum temperatures are fairly high, mostly ranging from 65° F. to 70° F., and day-to-day variations small at coastal stations. This moderating effect is less evident at stations near Lake Scutari in the north. Inland over the region, mean daily minimums in summer are lower, usually in the 50's and low 60's.

The winter temperature regime in the Coast Region is tempered by the relatively warm seas and at times by invasions of warm sirocco air. However, very cold air associated with the bora also reaches much of the coast at times, but is most

pronounced in the north. Mean daily maximum temperatures in winter are fairly uniform throughout most of the region, usually ranging in the high 40's and 50's. However, higher foothills especially in the north observe maximums several Fahrenheit degrees colder. Mean daily minimum temperatures are mostly in the 30's and 40's in winter. Elevated inland sections in the north experience slightly lower minimums. The warming influence of Lake Scutari is also apparent to some extent.

The diurnal temperature range in Albania shows little regional variation but is fairly large at stations at high elevations. The mean diurnal temperature range in the Coast Region is greatest at inland stations in the south such as Gjirokastër, where a mean range of 35 Fahrenheit degrees has been recorded in August. At most locations throughout the region the mean diurnal range is largest in the relatively cloud-free summers when radiational heating and cooling are greatest; a few stations may experience a maximum in spring or autumn because of differences in elevation and exposure. Absolute maximum temperatures exceeding 100° F. have been recorded over most of the region during the summer months, and temperatures this high have occurred as early as May and as late as October at some locations. The sea breeze prevents some exposed coastal locations from reaching this mark; on the south coast, Himarë has observed an extreme of 95° F. during the 3-year period of record. The highest recorded temperature of the region, 115° F., was recorded in July at Lezhë in the northwest. All sections have experienced temperatures at or below freezing during winter; freezing temperatures have been observed in October through April at several locations. The lowest temperature on record in the Coast Region, -2° F., occurred in January at Kallmet in the north.

Temperature data for the Interior Mountains Region are sparse and are limited to elevations below about 4,000 feet. Although data are not available for stations near Lakes Ohrid and Prespa, the lakes appear to modify temperatures somewhat throughout the year, as a source of heat in winter and of cooling in summer. The cool sea air also penetrates the region at times and to some extent helps moderate the summer heat. Mean daily maximum temperatures in summer up to levels of about 3,000 feet approach those of the Coast Region, varying between about 75° F. and 95° F. Maximums on the higher ridges probably average in the 60's or 70's. Summer nights are slightly cooler than in the Coast Region; mean daily minimum temperatures range generally from the mid 50's to the mid 60's up to about 3,000 feet, lowering to the 40's and 50's on the higher ridges. Winters are somewhat colder than

NOTE: Ground surface operations are defined as those operations taking place primarily at or very near the earth's surface. The meteorological elements discussed in this Subsection are those which are of primary importance to such operations as movement of troops and vehicles, selection of clothing and equipment, storage of supplies, and maintenance of armament and equipment. Some meteorological elements which may also have an effect upon this type of operation are discussed in Subsections B, 1 and B, 2.

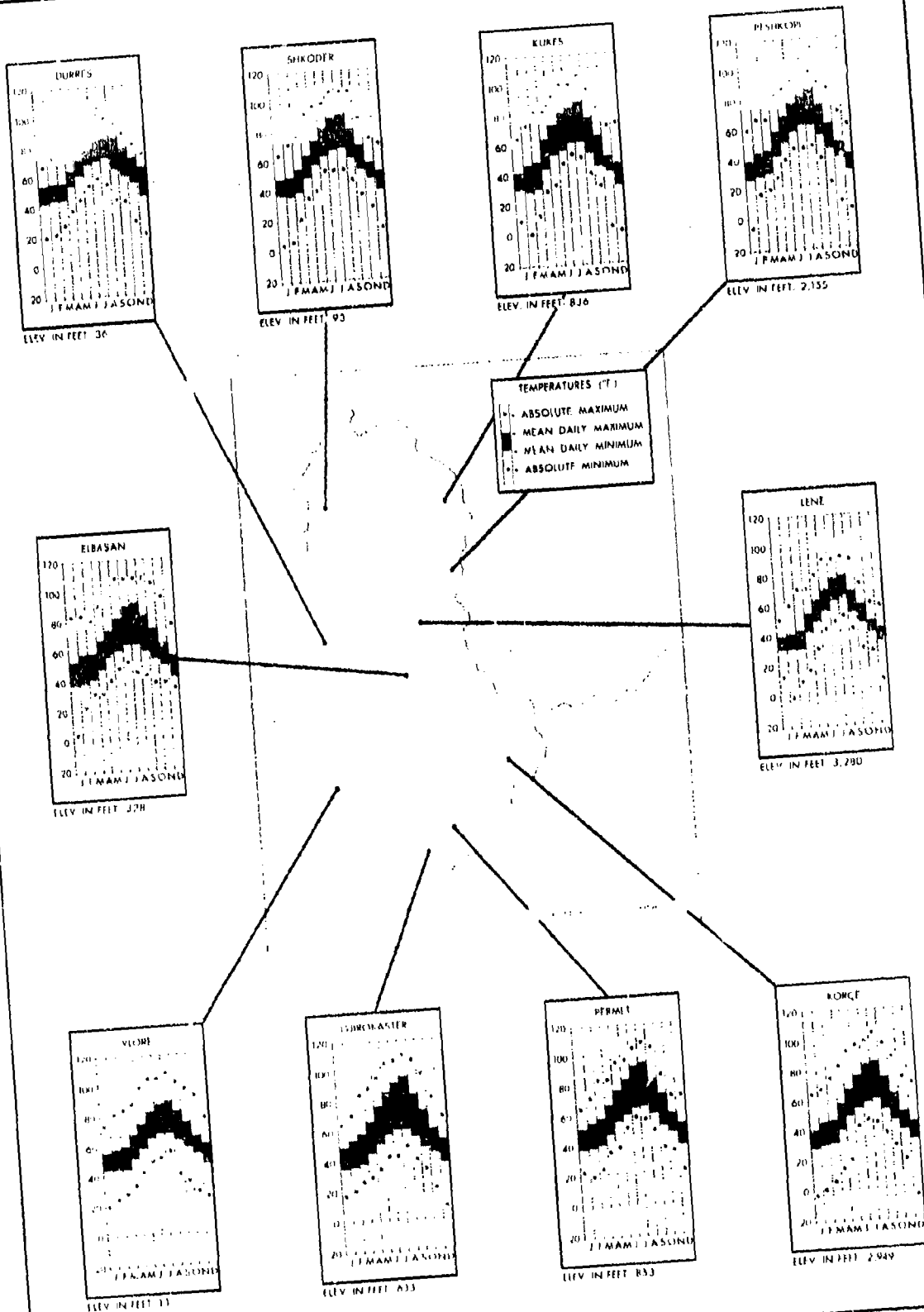


FIGURE 14. TEMPERATURES (° F.). (For tabular data see FIGURES 32 and 33.)

in the Coast Region. Cold air from interior Asia is strongly felt in the Interior Mountains Region, particularly in the northern mountains. The warming influence of the Adriatic and Ionian Seas is rather weak this far inland during winter. However, when the sirocco blows over the Area, considerable short-term warming may be experienced throughout much of the region, particularly in the south. Consequently, there is some evidence of a north-south temperature gradient, considering level for level, with temperatures increasing from north to south. Mean daily maximum temperatures in winter vary between about 40° F. and 55° F. up to levels of about 3,000 feet, dropping to the 20's and 30's on the higher ridges. Mean daily minimums range from about 25° F. to nearly 40° F. up to about 3,000 feet, and probably in the teens or 20's on the higher ridges. Better data coverage for the northern mountains would probably show appreciably lower values.

The pattern of mean diurnal temperature ranges over the region is very similar to that over the inland portion of the Coast Region. The largest ranges occur during summer when maximum heat is received from the sun and few clouds are present to hinder either insolation or radiational cooling. As in the Coast Region the range between mean daily maximum and minimum temperatures is lowest during the cold months when the skies are frequently cloudy. Differences in elevation and exposure also cause significant variations in the diurnal temperature range from station to station. Absolute maximum temperatures in the Interior Mountains Region have exceeded 100° F. at several stations in summer, occurring as late as September at Përmet in the far south. Temperatures of 106° F. have been recorded at Përmet and even much farther north at Peshkopi. Such high temperatures are probably rare at higher elevations. Freezing temperatures have been experienced at all locations in winter: at many stations they have occurred from mid-autumn to late spring. Locations near the mountain peaks probably record freezing temperature from time to time in all months. Voskopoje at an elevation of 3,870 feet gives a good indication of this probability with absolute minimums ranging from 39° F. in August to -13° F. in January; June, July, and August are the only months in the 29 years of record that have never recorded freezing temperatures.

The mean number of days with maximum temperatures 90° F. or more and minimum temperatures 32° F. or less are given in FIGURES 34 and 35, respectively. In general, the data show that hot summer days are most frequent in the Coast Region and freezing winter days most frequent in the Interior Mountains Region. Days with temperatures of 90° F. or more usually occur in June

through September, ranging in the hottest summer month from less than one-fourth of the days in the Interior Mountains Region to about three-fourths of the days over inland portions of the Coast Region. Days with temperatures of 32° F. or less usually occur in November through April in the Coast Region; the maximum frequencies, about 10 to 15 days per month, are in winter. In the Interior Mountains Region, days with freezing temperatures are normally expected in October through April or May at stations below about 3,000 feet. The maximum frequencies of about 25 days are in the coldest winter month at these levels.

b. RELATIVE HUMIDITY — Seasonal and diurnal variations of mean relative humidity for selected stations in Albania are shown graphically in FIGURE 15. Morning and afternoon observations were used because they are most often indicative of extreme values. Tabular data are given in FIGURE 36. Regional variations of relative humidity do not appear to be systematic, but show erratic changes from place to place, depending on such factors as location, elevation, and exposure. Diurnal and seasonal variations, on the other hand, are quite pronounced over most of Albania. Coastal stations are often the exception with generally small variations. Since relative humidity is dependent upon the temperature as well as the amount of water vapor in the air, it normally decreases with the usual diurnal increase in temperature from morning to afternoon; as evening approaches, the process gradually reverses. Throughout the year, relative humidity is lowest during the afternoon and highest in the morning. Evening relative humidity is also high and equals or exceeds morning values at some locations in the Coast Region. In all parts of the Area, relative humidity reaches a minimum in the hot summer months, mainly July and August, with the daily values averaging about 50% to 65% in the Coast Region; slightly lower mean daily values, 45% to 60%, are reported in the Interior Mountains Region. The relative humidity is usually highest in late autumn and winter, with daily values averaging about 70% to 85% in the Coast Region and about 80% to 95% in the Interior Mountains Region. A secondary maximum of relative humidity is apparent throughout most of Albania. This anomalous rise in May is believed to be caused by evaporation induced at the end of the wet season through increased solar heating and increased surface moisture resulting from snow melt.

The greatest range of mean relative humidity in the Coast Region occurs at Gjirokastër in the south, from 28% in the early afternoon in August to 95% in the early morning in November. Mean relative humidities in the Interior Mountains

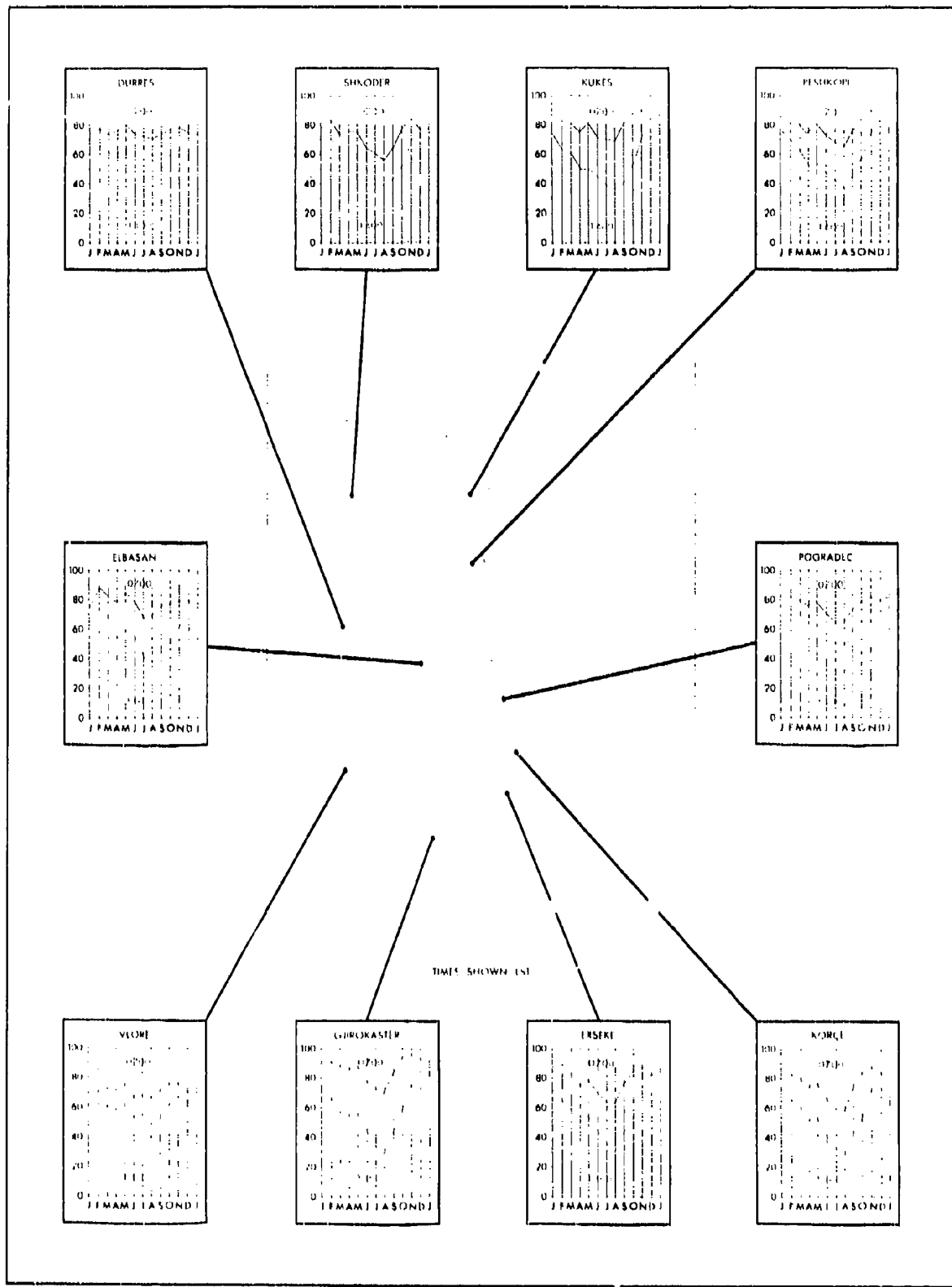


FIGURE 16. MEAN RELATIVE HUMIDITY (%) IN MORNING AND AFTERNOON. (For tabular data see FIGURE 36.)

Region range from as low as 28% during the afternoon in August at Korçë to as high as 90% in the morning in November at Kukës and Peshkopi.

c. PRECIPITATION — Precipitation is an important factor in most ground surface operations, particularly in a country like Albania where transportation is affected by appreciable precipitation amounts annually at most locations. FIGURE 16 shows graphically the regional and monthly variations in mean precipitation for selected stations. Tabular data are given in FIGURE 37 for a greater areal coverage. In general, precipitation is plentiful in autumn, winter, and spring, but only meager amounts fall on the Area in summer. A large part of the precipitation which falls in this NIS Area is associated with migratory depressions and their accompanying fronts which traverse the Adriatic in autumn, winter, and spring. The sirocco, a warm and humid southerly wind which usually blows in advance of these eastward moving depressions, is also responsible for much precipitation. These lows and moisture-laden winds carry appreciable amounts of precipitation to all parts of Albania, often in the form of heavy precipitation or showers. Also, during the cold months, the bora at times brings very heavy precipitation to the Area, particularly to the northern mountains. Summer rainfall usually comes as brief showers.

Throughout Albania the wet season generally begins in September and ends in May. Near drought conditions prevail in summer, particularly in parts of the south. On the whole, precipitation amounts are slightly larger in the Coast Region. This is not always true, however, in comparing individual locations; the higher windward slopes in the northern part of the Interior Mountains Region receive the greatest amounts of precipitation in the country. In the Coast Region, mean annual values range from 34.2 inches at Berat in a sheltered location in the southern interior to 102.6 inches at Kabash located on the western mountain slopes in the north. Most locations average about 40 to 65 inches annually. Monthly means in the wet season range as high as 17.3 inches, reported in October at Kabash, but are most often between about 3 and 8 inches. Summer rainfall also shows a maximum at Kabash of 4.3 inches in June. Most locations average about 2 inches or less per month. Stations in the extreme south are even more drought stricken; for example, Konispol receives an average of 0.3 to 0.6 inch per month in summer. Over the Interior Mountains Region as a whole, precipitation is slightly less. Mean annual amounts vary from 25.1 inches at Qukës-Shkumbin, located on a lee mountain slope in the central portion, to 127.3 inches at Theth nearly a thousand feet higher on an exposed windward slope in the north.

The highest wet season monthly mean is 26.8 inches in December at Theth, but the monthly means are between about 2 and 7 inches over most of the region. Summers are also dry in the Interior Mountains Region, particularly in the southern half; most stations over the region average less than 2 inches per month. However, exposed slopes in the north may receive several inches of rainfall even in the driest summer months; for example, the summer monthly rainfall at Theth ranges from 2.6 inches to 5.6 inches. Extreme southern sections normally have near-drought conditions, particularly in July and August when some locations average less than 0.5 per month.

In Albania, topography is a primary factor in the distribution of rainfall because about two-thirds of the country is made up of hills and mountains. To some extent the mountain ranges act as barriers to the moisture-laden winds, especially in the cold months, and, as would be expected, the windward slopes and foothills of the mountains receive much greater amounts than the lee slopes and sheltered valleys. Another factor contributing to reduced precipitation in the lee of mountains is the foehn effect, when relatively cold air is forced over mountains and descends the lee slopes, thereby becoming warmer, drier and more stable. Mountains are important, particularly during summer, in causing or aiding the ascent of air and thereby increasing the vertical structure of cumulus clouds which then produce showers.

Precipitation over the Area is quite erratic, with monthly and annual amounts varying considerably from year to year. The greatest and least monthly and annual amounts of precipitation at a number of stations over the Area are presented in FIGURE 38. At Dukat in the southern part of the Coast Region, for example, 33.9 inches was recorded in December of one year and 8.0 inches in the same month of another year. The annual values at this same station have varied as much as 83 inches from one year to another.

Heavy rainfall and rainshowers constitute much of the precipitation received in Albania. The intensity of the rainfall varies considerably, and at times violent cloudbursts may dump large amounts of water in one section within a very short period. As a result, flooding may occur at various locations throughout the Area. FIGURE 39 gives the maximum 24-hour precipitation for a number of stations. In the course of 24 hours, more than 5 inches of precipitation has fallen at a large number of stations over the Area, most often in the Coast Region. Gjirokastër in the southern part of this region has recorded as much as 11.3 inches in a 24-hour period in November. Some locations may receive as much or more

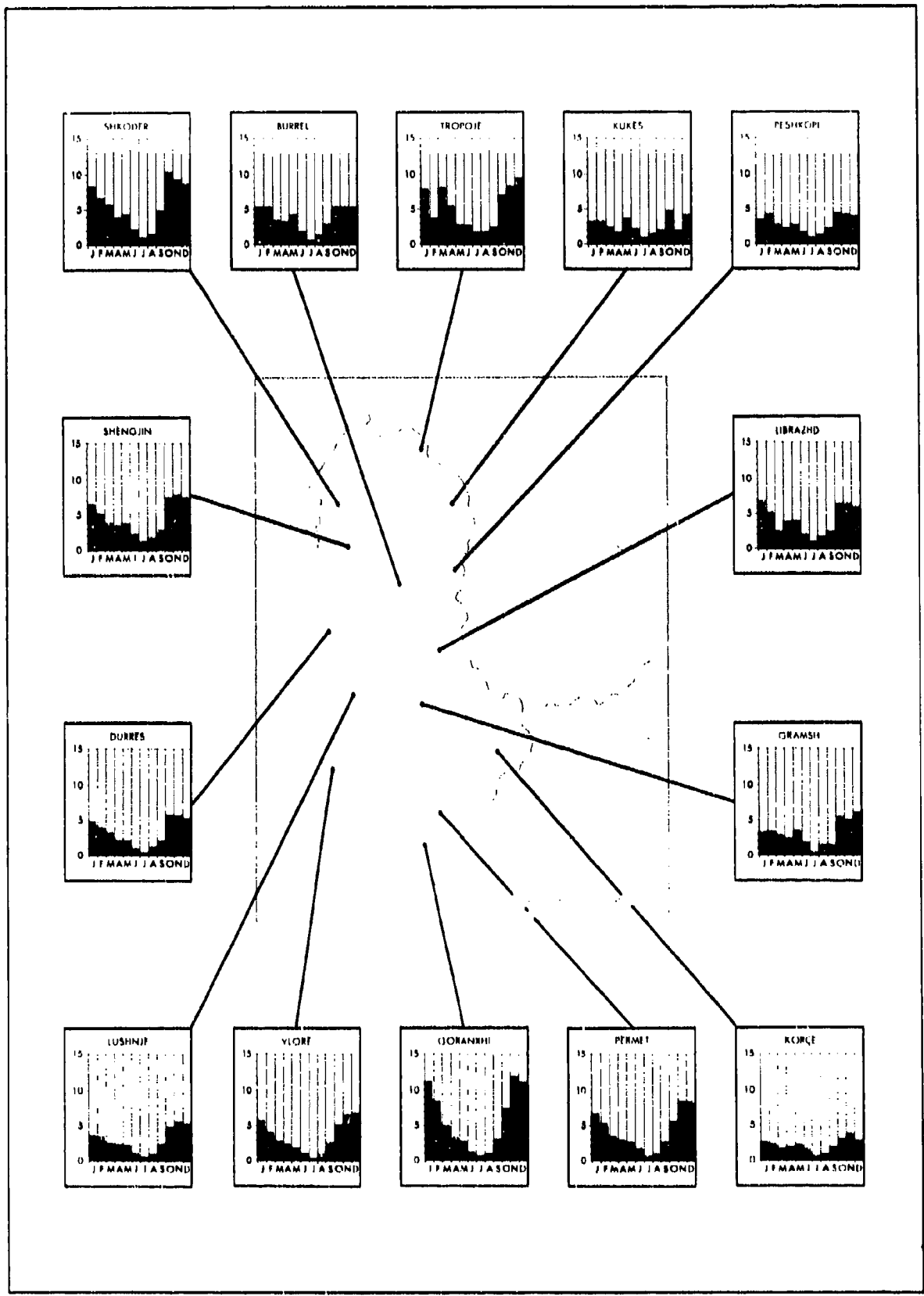


FIGURE 16. MEAN PRECIPITATION (INCHES). (For tabular data see FIGURE 37.)

in a single 24-hour period as is normally expected for the entire month. One such station is Tiranë located in the central part of the Coast Region; 10.3 inches has been recorded in a 24-hour period in February while the mean monthly amount is 4.7 inches.

Another indication of the dry summers and rainy winter and transition seasons in Albania is the frequency of days with measurable precipitation. These data are shown in graphic form for selected stations in FIGURE 17, and FIGURE 40 gives a more complete listing in tabular form. Regional variations are not great, however, there are significant differences between stations in both regions. The mean annual number of days with precipitation ranges from 55 at Qukës-Shkumbin in the central part of the Interior Mountains Region to 150 days at Fushë-Lurë in the northern part of the same region. July and August usually have least rainy days in both regions; most locations record less than 5 rainy days per month. During the wettest months, days with precipitation seldom exceed 15 per month at most locations. However, exposed slopes may experience 15 to 20 rainy days in some months.

Most locations throughout Albania have experienced snowfall at one time or another, but, in the coastal lowlands of the south, snow is rare and usually remains on the ground for a very short time. FIGURE 41 presents the frequency of days with snowfall and FIGURE 42 shows the greatest snow depth recorded over a reasonably long period of record. Snowfall is usually associated with the cold fronts of depressions moving south-eastward across the Adriatic Sea. The bora also brings heavy snow at times to the Area, especially to the northern mountains. At most locations in the Coast Region snow occurs on 1 day or less per month from November through March. However, exceptions are mountain locations where snow may occur on 2 or 3 days per month in the south and 5 or 6 days per month in the north. In the Interior Mountains Region snow usually occurs in November through April. In some years, higher locations, especially mountain peaks and ridges, may experience snowfall as early as September and as late as May or possibly June. Records show that the frequency of days with snowfall reaches 7 in the worst winter month, depending on latitude and elevation. Although data are not available for much of the northern mountains, there is some evidence that frequencies are significantly greater, particularly at the higher elevations. Snow depth varies widely over the Area. Generally, higher elevations in the north receive the greatest amounts of snowfall. Kërthpulë, at an elevation of 1,837 feet, has recorded a maximum snow depth of nearly 4 feet in December during a 9-year period. A better areal coverage of

snow depth data for the mountain peaks and ridges in the northern part of the Interior Region would likely show much greater depths.

d. OVERALL EFFECT OF WEATHER ON CLOTHING, STORAGE, AND SHELTER

(1) Clothing

(a) MAJOR INFLUENCES — Temperature, varying with the wide range of elevations and with the seasons, is the most significant climatic factor affecting clothing requirements for Albania. Other factors are the abundant precipitation and the high humidity during the winter months.

(b) REGIONAL REQUIREMENTS — Clothing requirements for Albania (FIGURE 18) are expressed in terms of clothing assemblies that have been prescribed for worldwide military use in accordance with specified mean monthly temperatures as follows:

CLOTHING ASSEMBLY	MEAN MONTHLY TEMPERATURES
Warm-weather	Above 68° F.
Cool-weather	50° to 68° F.
Cold-weather	14° to 50° F.

Appropriate U.S. service regulations list the exact nomenclature and the basis for issue of various components of these clothing assemblies. For general planning purposes, however, the clothing assembly components are described in general terms. Also listed are special items which may be necessary because of varying climatic or other environmental factors.

The warm-weather assembly is a cotton outfit (visored cap, shirt, trousers, and underwear). It also includes tropical combat boots and a poncho. A woolen blanket is adequate sleeping equipment for use with this assembly.

The cool-weather clothing assembly supplements the warm-weather clothing assembly with a hooded water-repellent wind-resistant coat. Leather combat boots replace the tropical combat boots. Two woolen blankets or a lightweight sleeping bag are adequate sleeping equipment for use with this assembly.

The cold-weather assembly consists of a wool shirt, wool trousers, wool-and-cotton underwear, and insulated rubber boots. A coat liner is added to the coat used with the cool-weather assembly. A cotton field cap or a field cap with wool pile lining is worn, depending on the degree of coldness. Woolen glove inserts or woolen mitten inserts, worn with the appropriate leather shells, are also components of the cold-weather assembly. A mountain-type sleeping bag (down- and feather-filled) with a water-repellent case is adequate sleeping equipment for use with this assembly.

(c) EXCEPTIONS AND ADDITIONS FOR INDIVIDUALS IN A PROTECTED ENVIRONMENT — The clothing assemblies just described are based on the as-

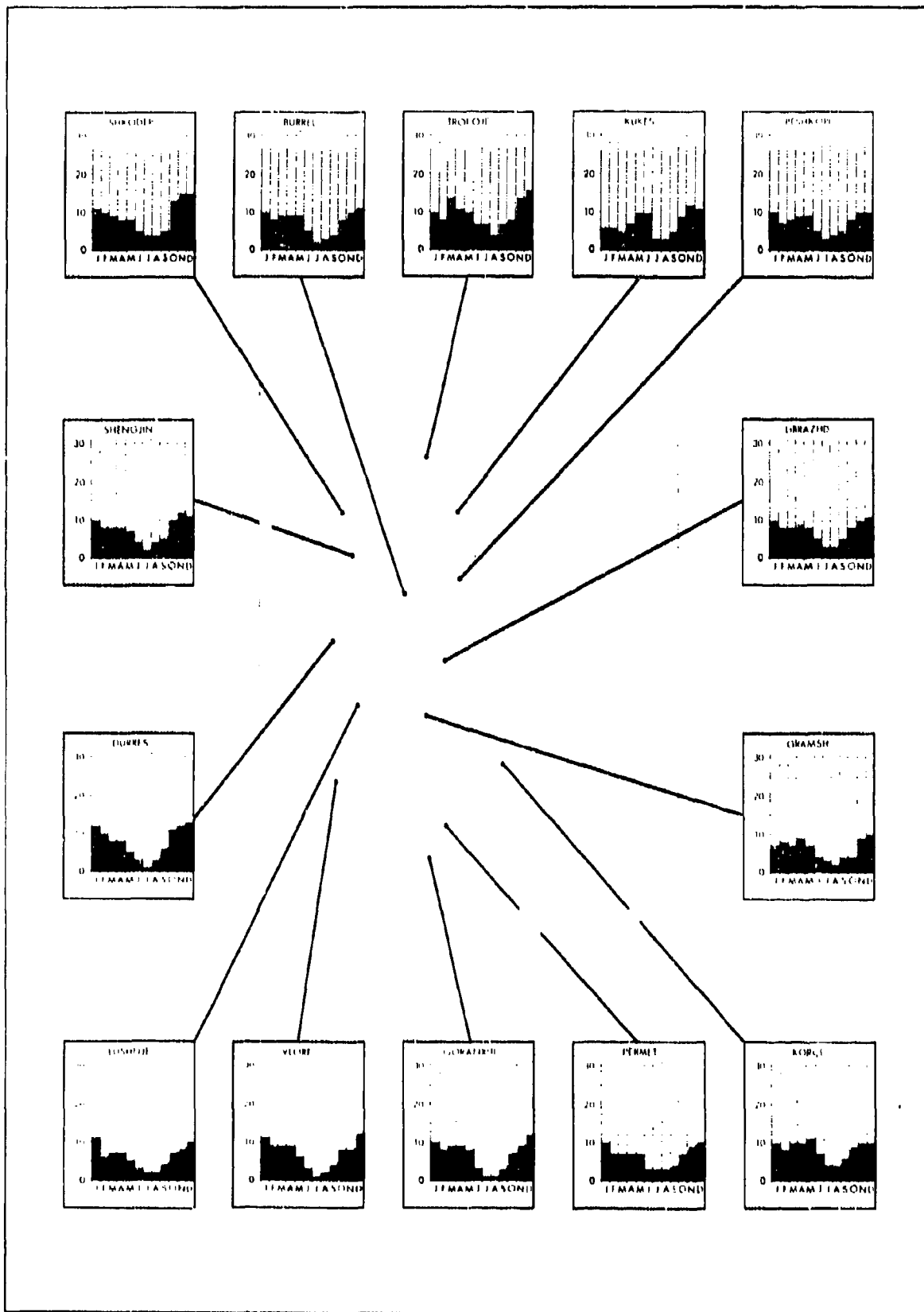


FIGURE 17. MEAN NUMBER OF DAYS WITH PRECIPITATION  $\geq 0.004$  INCH. (For tabular data see FIGURE 40.)

FIGURE 18. CLOTHING REQUIREMENTS

REGION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Coast:												
Below 3,000 feet.....	D	D	D	C	C	W	W	W	W	C	C	D
Above 3,000 feet.....	D	D	D	D	C	C	C	C	C	D	D	D
Interior Mountains:												
Below 3,000 feet.....	D	D	D	C	C	C	W	W	C	C	D	D
3,000 to 5,000 feet.....	D	D	D	D	C	C	C	C	C	C	D	D
5,000 to 7,000 feet.....	D	D	D	D	D	C	C	C	C	D	D	D
Above 7,000 feet.....	D	D	D	D	D	D	D	D	D	D	D	D

W—warm-weather clothing assembly; C—cool-weather clothing assembly; D—cold-weather clothing assembly.

sumption that the individuals wearing them will be living in the open 24 hours a day. Clothing assemblies for use at permanent installations may be modified to suit a less demanding environment. A raincoat may be more practical than a poncho, blankets may be used instead of a sleeping bag, and service-type oxfords with overshoes may be more serviceable than the high-cut boot.

(d) **SPECIAL REQUIREMENTS** — Protection is required against insects, sunglare and sunburn, and poisonous snakes. Insect bars, repellents, headnets, and similar items are required for protection against disease-carrying insects, mainly mosquitos and sandflies, particularly from early May through November. Insect bars with a finer mesh than the 18-mesh mosquito bar is desirable for protection against sandflies, which are prevalent in coastal locations. Tinted glasses, sunburn cream, and chapsticks are necessary for protection against sunburn and sunglare in summer and sunglare off snow in winter. Leather combat boots may be more practical than the tropical combat boots prescribed for the warm-weather assembly; they would wear better on the rough ground and provide better protection from snake bite. Waterproofed footwear is desirable during the prolonged period when wet ground conditions prevail, locally, in lowland marshy sections. Extra footwear and clothing would be necessary because of the rapid wear caused by the rough ground and thorny vegetation and because of the abundant precipitation and high relative humidity during the winter months.

(2) **Storage** — The main factors affecting items stored in the open are temperature, humidity, and precipitation. Such items require maximum air circulation in and between stacks for protection against high temperatures, often above 90° F., during the summer months. Cover should also be provided to allow for maximum shade. Items most subject to damage by high temperatures, especially subsistence and medical supplies, should be protected by cold storage. In winter, protective measures against mildew and fungus are necessary because of the high relative humidity, and measures must be taken to protect items subject to damage by freezing temperatures, heavy

rains, and snow. Protection against occasional strong winds, sometimes reaching gale force, are necessary, especially in autumn, winter, and spring. Dunnage material is generally available in limited quantities over most of the Area, except in some sections along the coast and in the south. Flood plains of streams should be avoided as sites for storage dumps because of the danger of flash floods.

(3) **Shelter** — Shelter is necessary for protection against precipitation, low temperatures, and, during the warmer months, against insects. Tentage developed by the U.S. Army for Temperate Zone operations is satisfactory for use in the warmer months, and tentage similar to the U.S. Army hexagonal or arctic tent would provide adequate protection in winter. The use of a tent fly (an extra layer of canvas suspended above the tent) is desirable for protection against insolation in summer. Tents require flooring and screening to afford protection from ground moisture, vermin, and insects. Shelter such as the U.S. Army flyproof kitchen tent would provide generally adequate protection against most insects during the preparation and serving of food. The prevalence of vermin such as rodents requires that provisions be made for preventive measures.

#### 4. Amphibious operations

Summer is the most favorable season for amphibious operations. Although autumn and spring are less favorable, and winter the least favorable, it would be possible to conduct amphibious operations successfully in any season. Summer is hot and dry with little cloud cover and a definite land-and sea-breeze effect. The remainder of the year

**NOTE** Amphibious operations are defined as those operations involving the movement of troops and equipment onto a beach and the associated protective measures. The meteorological elements discussed in this Subsection are those which are of primary importance to such operations as helicopter troop transport, waterborne troop and cargo landing, underwater demolition, air support, and naval gunfire support. Further discussion of some of the elements may be found in the Subsection on Air, Air-ground, and Ground Surface Operations.

is mild and rainy with occasional periods of strong northeasterly winds (*bora*) and southerly winds (*sirocco*).

The sirocco, when fully developed, varies from a moderate wind to a gale, often accompanied by dense low clouds and rainfall which is at times very heavy. It occurs chiefly in autumn through spring, usually in advance of cyclonic depressions. Once developed it usually blows with almost constant force, often generating heavy seas. The sirocco may continue, with only a few short breaks, for several days at a time.

Winds generally are from an easterly or southeasterly direction, with the exception of the summer months when they are frequently from the northwest. The average wind speed is generally less than 10 knots in all seasons. Although gale-force winds are most frequent in winter, they occur less than 1% of the time in any month. Land and sea breezes prevail during the summer months, and frequently cause heavy seas.

Cloud amounts vary according to season, and the greatest cloudiness occurs in late autumn through early spring, when the average cloud cover is about 6- or 7-tenths. Summer is the clearest season, with an average of about 2-tenths cloud cover.

The greatest rainfall occurs in autumn through spring, with amounts up to about 10 inches monthly. Summer is the season of least rainfall, about 2 inches or less per month. Thunderstorms may occur in any month but are most frequent in late spring and in autumn. Snow occurs on about 1 or 2 days annually.

Winter and early spring have the poorest visibility. Visibilities of less than 1 mile seldom occur, and visibilities of less than 6 miles occur about 9% of the time in winter and early spring, 3% in summer, and 6% in autumn.

The annual range of temperature along the Albanian coast is not very great because of the moderating effect of the adjacent seas. Mean temperatures vary from the high 40's ("F.") in January to the high 70's in July. However, temperature changes may be sudden between occurrences of the sirocco and the bora. Frost is rare. Temperatures may occasionally fall below freezing in the cold outbreak of the bora. The mean relative humidity ranges from about 60% to 65% in August to about 75% in some of the colder months. Mean sea-surface temperatures range from about 55° F. in February to 77° F. in August.

Seas greater than 5 feet have a frequency of 30% in winter, 13% in spring, and less than 1% in summer and autumn. Significant swell usually approaches from a northerly direction. Swell greater than 5 feet occurs 20% of the time in winter, 11% in spring, and less than 2% in summer and autumn.

## C. Meteorological facilities and organization (as of July 1963)

### 1. History and organization

In 1957 Albania became a member of the World Meteorological Organization (WMO); until then it had no well-organized weather service. Precipitation was recorded at many locations throughout the country while temperature and cloud observations were recorded by appointed persons in a few major cities. The status of these observers was similar to that of a U.S. Weather Bureau cooperative observer, a person without formal training in weather observing. At intervals, these observations were collected and compiled into climatological handbooks. These handbooks, which have been accepted by the WMO, are considered accurate enough to give valuable information about some aspects, at least, of the weather and climate of Albania.

Meteorological service in Albania is provided by the *Shërbimit Hidrometeorologjik* (Hydrometeorological Service). This service has two functioning divisions: 1) Meteorology and 2) Hydrology. A third, Agriculture, is not yet operational. Mr. Derulsh Dojka is the director of the Hydrometeorological Service.

### 2. Weather observing facilities

Albania has nine operational weather stations that take observations and transmit them to the worldwide weather network. They are located at Kukës, Shkodër, Durrës, Tiranë, Peshkopi, Vlorë, Stalin, Gjirokastër, and Korçë. These stations record weather observations each hour, 24 hours a day, and transmit their observations to the worldwide weather network every three hours beginning at 0000 GMT. Tiranë is the only station that takes upper-air observations. These observations are pibals (visual upper-wind reports), which are taken and transmitted at 0000, 0600, and 1500 GMT daily. In addition, there are 167 other weather stations taking observations. Fifteen of these take complete surface weather observations, 50 take limited surface observations, and 102 observe precipitation only.

### 3. Weather forecasting facilities

Tiranë is the main forecasting station for Albania. There are forecasters who speak Albanian and English on duty 24 hours daily. These forecasters prepare 3-hourly surface analyses and prognostic charts and constant pressure analyses and prognostic charts for the 700-, 500-, and 300-millibar surfaces. Area and route forecasts are also prepared. The function of this station compares with the function of the U.S. Weather Bureau at Washington National Airport. No information is available on other forecasting facilities.

#### 4. Training and research and development progress

No information on the training of meteorologists in Albania is currently available, and there is no evidence of an active research and development program.

#### D. Climatic data tables

This Subsection contains the climatological data tables referred to in Subsections A and B. Because of the very limited Albanian meteorological facilities in the past, data for some elements are completely lacking, especially in the northern mountains. The higher elevations are without representation in the tables. The areal coverage

for precipitation and temperature data, however, are adequate for a large part of the Area and in some cases extend over a long period of record.

Data for several stations near but outside the Area are included and are useful as indicators of the general trends where data within the Area are lacking. In all cases, the data presented are the best available and are considered to be reasonably reliable. Annual values in some tables may differ slightly from the sums or means of the monthly values because of the rounding-off of fractions.

A map of station locations (FIGURE 43), with an accompanying list giving latitude, longitude, and elevation of stations mentioned in Subsections A, B, and D, appears at the end of the Section.

FIGURE 10. MEAN CLOUDINESS (%) AT SPECIFIED HOURS

REGION AND STATION	HOOR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	YRS REC
	(LST)														
Coast:															
Buchkash.....	0700	04	82	01	07	02	37	15	15	41	50	03	74	57	3
	1400	51	72	50	63	49	44	22	17	33	37	04	50	47	3
	2100	46	09	50	51	50	42	20	13	26	38	03	52	43	3
Durrës.....	0700	59	77	07	06	58	41	16	16	31	40	70	59	50	3
	1400	01	77	03	00	49	41	19	14	34	38	73	01	40	3
	2100	54	05	54	48	41	33	13	11	28	30	02	58	41	3
Elbasan.....	0700	35	44	71	03	51	24	20	10	31	38	73	01	44	2-3
	1400	37	43	03	73	04	41	52	26	46	44	75	02	52	2-3
	2100	35	57	51	45	37	30	15	8	21	31	57	52	37	2-3
Gjrokastër.....	0700	70	74	74	75	53	40	10	13	38	50	83	69	54	3
	1400	73	79	71	70	71	01	35	23	51	51	84	76	03	3
	2100	56	00	50	56	44	34	0	0	29	41	00	04	44	3
Shkodër.....	0700	03	83	05	70	50	40	19	18	38	46	79	60	55	3
	1400	06	80	04	70	58	55	33	24	40	44	70	05	56	3
	2100	53	71	51	53	48	30	19	14	26	38	04	55	44	3
Tirana.....	0700	58	74	04	05	58	38	15	15	31	40	06	58	49	3
	1400	04	78	00	73	01	53	28	23	41	48	70	04	50	3
	2100	50	08	53	54	44	35	14	10	26	34	00	55	42	3
Titograd*.....	0700	74	70	04	50	04	41	24	24	40	50	00	02	54	2-3
	1300	74	80	54	01	70	54	38	29	48	00	01	04	59	2-4
	1900	00	70	55	59	06	50	42	31	39	46	51	55	53	2-4
Uroinj*.....	0700	09	72	00	51	49	38	21	22	34	54	05	50	49	4-5
	1300	72	75	54	48	51	38	23	20	30	52	01	50	49	4-5
	1900	08	08	54	48	52	41	20	19	34	30	51	52	45	4-5
Vlorë.....	0700	50	08	00	58	42	30	11	11	25	41	08	58	45	3
	1400	03	70	02	00	52	44	19	12	32	42	78	08	50	3
	2100	45	50	43	43	32	27	0	8	18	34	02	52	30	3
Interior Mountains:															
Ersekë.....	0700	04	09	07	07	49	23	0	10	28	38	71	05	47	3
	1400	05	71	07	80	72	59	35	24	48	46	77	68	59	3
	2100	43	48	47	48	40	27	0	8	24	35	54	52	36	3
Korçë.....	0700	70	09	76	09	55	40	15	15	41	53	78	04	54	3
	1400	73	75	75	78	74	04	30	20	54	53	84	73	04	3
	2100	00	55	01	55	51	38	18	15	30	45	09	03	47	3
Kukës.....	0700	76	74	70	78	00	45	24	25	42	06	89	72	00	3
	1400	78	75	71	78	71	00	42	28	46	52	88	70	03	3
	2100	07	07	50	70	58	39	17	18	28	40	70	45	49	3
Peç*.....	0700	85	79	04	05	62	45	34	29	40	04	09	70	59	1-3
	1300	82	78	04	08	71	09	58	48	48	05	74	09	06	3-4
	1900	71	71	59	01	08	06	40	41	40	55	09	05	59	2-3
Peshkopi.....	0700	70	77	72	77	02	44	15	10	51	51	82	08	57	3
	1400	73	78	72	85	74	08	38	27	54	49	87	72	05	3
	2100	57	70	57	73	56	40	14	12	33	38	71	59	48	3
Pogradec.....	0700	05	00	08	05	54	40	14	10	39	53	80	04	52	3
	1400	08	08	02	07	02	52	31	24	47	52	76	03	50	3
	2100	04	00	58	50	54	40	22	14	35	42	72	01	49	3

\* Near but outside NIS 20 Area.

FIGURE 20. MEAN NUMBER OF CLEAR DAYS ( $\geq 2$ -TENTHS CLOUD COVER) AT SPECIFIED HOURS

REGION AND STATION	HOOR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	YRS REC
	(LSP)														
Coast:															
Bushkush.....	0700	11	3	11	8	10	18	25	25	17	12	2	7	140	2-3
	1400	14	7	14	8	13	14	23	23	19	18	9	11	173	3
	2100	16	7	15	13	11	15	22	20	21	18	10	14	188	3
Durrës.....	0700	9	3	7	6	8	13	24	24	18	14	4	9	139	2-3
	1400	8	3	8	9	11	13	24	25	16	17	5	9	148	2-3
	2100	12	6	12	13	15	13	26	27	18	19	8	10	179	3
Elbasan.....	0700	13	7	10	8	12	15	18	24	17	17	5	9	155	2-3
	1400	11	8	10	4	6	5	6	10	10	14	5	8	103	2-3
	2100	13	10	13	14	17	19	23	28	21	19	10	13	200	2-3
Gjirokastër*.....	0700	8	7	7	6	14	17	27	27	18	14	3	8	157	3
	1400	7	4	8	5	7	9	18	25	12	14	4	6	110	3
	2100	13	9	13	13	16	19	28	28	20	17	9	10	198	3
Shkodër*.....	0700	12	4	10	6	13	15	25	20	18	16	6	10	162	3
	1400	10	5	10	9	12	13	22	24	19	17	5	11	158	3
	2100	14	8	14	13	15	19	27	26	23	19	10	14	203	3
Tiranë*.....	0700	12	6	9	8	12	17	20	25	20	18	9	12	174	3
	1400	10	5	9	6	10	12	24	24	18	16	5	10	149	3
	2100	15	8	13	12	16	19	26	27	21	19	11	12	190	3
Titograd**.....	0700	7	6	10	10	9	15	23	24	18	10	10	10	152	2-3
	1300	6	5	14	8	5	10	17	21	14	9	9	10	128	2-4
	1900	10	7	13	10	8	10	15	19	17	15	14	13	150	2-4
Uletin**.....	0700	7	7	10	11	14	16	24	22	18	12	9	12	161	4-5
	1300	7	5	13	14	12	17	23	25	17	12	10	12	166	4-5
	1900	8	8	13	13	11	14	24	23	18	18	13	14	178	4-5
Vlorë.....	0700	12	6	9	9	15	16	20	20	21	15	6	10	171	3
	1400	9	4	10	9	14	13	24	27	17	17	4	8	150	3
	2100	15	10	16	15	23	19	27	27	23	19	8	12	214	3
Interior Mountains:															
Ersekë.....	0700	10	6	8	9	13	18	27	27	20	18	7	9	172	3
	1400	8	6	7	5	4	7	13	20	11	13	5	8	107	2-3
	2100	16	12	14	13	16	20	27	28	20	18	10	13	207	3
Korçë*.....	0700	8	7	6	7	13	17	27	20	16	14	6	9	155	3
	1400	7	5	5	5	4	7	17	22	11	15	4	7	107	3
	2100	11	13	10	12	13	19	25	26	21	16	8	10	185	3
Kukës.....	0700	6	7	7	4	10	14	21	22	14	9	4	7	125	2-3
	1400	4	6	7	5	8	6	12	20	12	12	6	7	105	2-3
	2100	8	7	11	5	10	15	23	24	18	17	5	9	152	3
Peë**.....	0700	4	4	8	9	8	13	20	22	16	9	8	7	128	1-3
	1300	4	3	8	6	4	3	10	14	13	9	5	8	80	3-4
	1900	8	6	11	9	4	7	16	16	15	11	8	9	122	2-3
Peshkopi.....	0700	7	9	8	6	10	15	26	25	16	14	5	9	150	3
	1400	6	6	8	4	7	7	17	22	11	14	5	8	115	2-3
	2100	15	16	12	8	10	14	18	17	13	13	13	11	166	2-3
Pogradec.....	0700	11	12	10	8	10	13	17	16	11	8	10	9	135	2-3
	1400	11	12	9	7	5	6	8	13	8	11	3	6	99	2-3
	2100	15	14	12	9	11	13	16	16	10	13	9	8	146	3

\* Clear day is defined as  $\leq 3$ -tenths cloud cover.

\*\* Near but outside N18 20 Area.

FIGURE 21. MEAN NUMBER OF CLOUDY DAYS (≥8-TENTHS CLOUD COVER) AT SPECIFIED HOURS

REGION AND STATION	HOOR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	YRS REC
	(LST)														
Coast:															
Bushkash.....	0700	19	26	19	19	18	10	4	6	11	11	23	20	186	3
	1400	14	20	15	17	13	12	5	5	9	10	17	16	153	3
	2100	13	19	15	14	15	11	4	4	6	11	18	15	145	3
Durrës.....	0700	17	19	18	19	15	8	3	3	6	9	17	14	148	3
	1400	16	18	16	14	12	9	3	2	6	8	19	15	138	3
	2100	14	15	15	11	9	6	2	2	4	5	11	15	100	3
Elbasan.....	0700	15	17	15	17	14	8	3	3	6	9	19	17	143	2-3
	1400	10	17	16	18	15	13	8	2	9	11	20	17	162	2-3
	2100	14	14	18	11	9	7	4	3	4	7	14	15	120	2-3
Gjirokastër*.....	0700	21	19	22	21	15	10	1	3	10	15	24	20	181	3
	1400	22	21	22	22	22	16	6	4	11	13	25	23	207	3
	2100	16	16	17	15	11	8	2	3	6	11	19	19	143	3
Shkodër*.....	0700	17	23	19	23	16	12	4	4	10	13	23	20	184	3
	1400	19	22	19	19	15	13	7	5	9	11	21	19	179	3
	2100	15	20	15	14	13	8	3	3	7	11	18	16	143	3
Tirani*.....	0700	17	19	20	17	16	9	3	3	7	11	18	16	157	3
	1400	18	20	19	19	15	11	4	4	9	13	22	18	173	3
	2100	14	17	15	14	11	9	3	2	5	9	16	16	131	3
Titograd**.....	0700	22	18	19	16	18	10	5	5	11	16	16	17	173	2-3
	1300	23	22	14	15	19	12	8	3	9	19	16	18	177	2-4
	1900	20	19	16	14	18	14	10	6	8	11	14	16	166	2-4
Ulcinj**.....	0700	19	19	16	12	13	8	4	4	8	15	18	16	152	4-5
	1300	22	20	15	12	12	7	5	4	8	14	17	15	150	4-5
	1900	20	17	15	11	12	9	4	3	8	10	13	14	136	4-5
Vlorë.....	0700	12	16	18	14	10	8	3	2	6	8	18	16	131	1-3
	1400	17	16	16	15	14	9	3	2	5	9	22	20	148	3
	2100	12	15	12	11	8	5	3	3	3	7	16	13	108	2-3
Interior Mountains:															
Ersekë.....	0700	19	17	19	19	13	7	2	3	7	10	19	15	150	2-3
	1400	18	17	19	21	19	14	4	4	9	11	21	12	169	3
	2100	11	11	13	12	10	6	2	2	4	9	13	13	106	3
Korçë*.....	0700	20	18	23	19	16	9	3	3	10	15	21	19	175	3
	1400	21	19	22	21	21	16	6	5	14	14	25	22	207	3
	2100	17	14	17	13	13	8	2	3	7	13	18	19	144	3
Kukës.....	0700	21	19	19	21	16	11	5	6	9	19	26	20	192	3
	1400	22	19	19	19	17	12	7	5	10	14	24	20	188	3
	2100	19	17	12	17	16	6	3	4	7	10	21	18	150	2-3
Pejë**.....	0700	25	20	19	19	17	10	7	6	10	17	19	22	191	1-3
	1300	26	20	19	18	20	18	16	10	10	18	21	21	217	3-4
	1900	21	19	17	16	19	17	10	10	11	16	20	18	194	2-3
Peshkopi.....	0700	20	21	22	21	18	12	4	4	12	14	23	21	192	3
	1400	20	22	21	23	20	17	8	6	14	13	25	22	211	3
	2100	16	19	17	19	15	10	3	4	8	9	20	17	157	2-3
Pogradec.....	0700	16	14	17	15	12	7	1	4	8	12	19	15	140	2-3
	1400	17	14	14	14	11	8	2	2	7	12	19	15	126	2-3
	2100	14	13	14	13	12	7	4	3	7	10	19	19	135	3

\* Cloudy day is defined as ≥7-tenths cloud cover.

\*\* Near but outside N18 20 Area.

FIGURE 22. MEAN NUMBER OF DAYS WITH TOTAL CLOUD COVER 3/4-TENTHS AND VISIBILITY 2 1/2 MILES AT SPECIFIED HOURS

REGION AND STATION	HOOR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	YRS REC
	(LST)														
Const:															
Kërçira*	0700	9	8	11	14	17	22	27	26	19	14	7	10	183	0
	1000	12	14	15	14	16	19	20	26	23	18	11	15	200	0
Titograd*	0700	7	6	10	10	9	15	23	24	18	10	10	10	151	2-3
	1300	6	5	14	8	5	10	18	21	14	9	9	10	128	2-4
	1900	10	7	12	10	8	10	15	10	17	15	14	13	150	2-4
Ulcinj*	0700	7	6	10	11	14	16	24	21	17	12	9	12	150	4-5
	1300	7	5	13	14	13	17	22	25	17	12	10	12	100	4-5
	1900	9	8	13	13	11	14	24	23	18	18	13	14	178	4-5
Vlorë	0700	9	na	7	na	17	21	29	20	20	16	5	2	na	1
	1300	15	17	14	9	14	17	30	na	na	18	6	6	na	1
Interior Mountains:															
Flërin*	0700	6	6	12	11	13	17	23	22	16	10	6	10	150	0
	1000	9	11	13	9	7	10	17	18	15	13	10	11	143	0
Pejë	0700	4	3	8	9	8	13	20	22	16	9	7	7	125	1-3
	1300	4	3	8	6	4	3	10	14	13	9	5	9	86	2-3
	1900	8	6	11	9	6	7	16	16	15	11	8	9	121	1-3

na Data not available.

\* Near but outside NIS 20 Area.

FIGURE 23. MEAN NUMBER OF DAYS WITH THUNDERSTORMS

REGION AND STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	YRS REC
Const:														
Durrës	2	3	2	2	5	1	3	1	3	4	3	1	30	6
Fier	2	4	*	*	4	1	1	1	1	3	3	2	22	3
Gjirokastrë	2	3		3	5	1	4	3	3	3	5	3	40	6
Kërçira**	1	1			1	1	1	1	2	2	2	2	16	16
Sarandë	*	0	1		*	*	1	*	1	*	3	*	7	3
Shkodër	2	2	2	2	4	2	2	2	4	3	2	2	29	6
Stallë	2	3	1	2	7	3	3	2	3	4	4	1	35	6
Tiranë	2	4	2	4	1	3	4	3	3	4	3	1	37	6
Vlorë	3	4	2	2	4	2	3	2	4	7	6	4	43	6
Interior Mountains:														
Ersekë	0	1	*	1	3	4	1	2	2	1	2	*	17	3
Korçë	*	1	*	1	3	3	3	3	2	2	2	1	21	6
Kukës	1	2	1	2	4	5	3	3	4	4	1	*	30	6
Peshkopi	1	1	1	1	5	5	5	3	3	2	1	1	29	6
Pogradec	0	0	1	1	2	1	1	*	*	*	1	0	7	3

\* 0.5 day.

\*\* Near but outside NIS 20 Area.

FIGURE 24. PERCENTAGE FREQUENCY OF SPECIFIED CEILING\* RANGES AT SPECIFIED HOURS

REGION AND STATION	HOUR (LST)	RANGE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	YRS DEC	
			<i>feet</i>														
Const:	Kérkira**	0700	≥4,083	2	3	3	1	1	0	0	0	1	1	3	1	1	0
		≥4,020	25	22	22	8	0	5	1	3	0	5	10	24	12	0	0
	1900	≥4,083	***	1	***	***	2	0	0	0	***	0	***	***	***	0	0
		≥4,020	18	14	11	10	10	2	2	***	4	11	14	14	0	0	0
Titograd**	0700	≥4,083	2	4	2	1	0	0	0	0	0	1	0	4	1	2-3	2-3
		≥4,020	32	41	22	10	10	9	3	5	14	18	28	32	20	2-3	2-3
	1300	≥4,083	4	11	1	0	0	0	1	0	0	3	3	3	2	2-3	2-3
		≥4,020	37	40	20	20	10	17	8	1	0	23	35	31	22	2-3	2-3
	1900	≥4,083	3	4	1	1	0	0	0	0	0	0	1	2	1	2-3	2-3
		≥4,020	35	42	24	22	23	8	5	4	10	21	28	33	21	2-3	2-3
Ulcinj**	0700	≥4,083	1	1	0	0	0	0	0	0	0	0	0	0	***	4-5	4-5
		≥4,020	40	47	26	17	10	7	4	4	10	25	33	20	22	4-5	4-5
	1300	≥4,083	1	0	0	1	0	0	1	0	0	0	0	1	***	4-5	4-5
		≥4,020	30	40	10	18	14	4	3	1	10	24	32	31	20	4-5	4-5
	1900	≥4,083	0	0	1	0	0	0	1	0	0	0	1	1	***	4-5	4-5
		≥4,020	40	41	22	10	12	7	2	2	14	20	28	31	20	4-5	4-5
Interior Mountains:																	
Flórina**	0700	≥4,083	15	13	5	1	1	1	0	1	4	5	7	8	5	5-7	5-7
		≥4,020	20	17	10	4	3	3	1	1	5	17	18	10	10	5-7	5-7
	1900	≥4,083	15	11	7	1	0	1	2	1	2	5	7	0	5	5-7	5-7
		≥4,020	21	10	13	4	3	5	3	2	8	10	20	10	10	5-7	5-7
Icannina**	0700	≥4,083	0	0	0	2	***	0	0	0	2	8	11	10	5	0	0
		≥4,020	40	30	27	20	10	8	3	2	11	27	48	43	24	0	0
	1900	≥4,083	***	1	1	0	0	0	0	0	***	***	0	***	***	0	0
		≥4,020	34	32	25	34	20	15	7	7	11	20	34	27	23	0	0
Pod**	0700	≥4,083	3	5	2	0	0	0	0	0	0	4	3	5	2	2-3	2-3
		≥4,020	75	75	45	44	40	17	21	10	22	38	50	71	44	2-3	2-3
	1300	≥4,083	5	0	0	0	0	0	0	0	0	0	1	4	1	2-3	2-3
		≥4,020	72	61	40	44	50	40	55	30	28	44	50	50	50	2-3	2-3
	1900	≥4,083	1	0	0	0	0	0	0	0	0	0	1	5	1	2-3	2-3
		≥4,020	61	62	54	44	47	44	21	33	34	40	50	57	47	2-3	2-3

\* Ceiling herein is defined as 10-tenths cloud cover.

\*\* Near but outside N18 20 Area.

\*\*\* <0.5%.

FIGURE 25. PERCENTAGE FREQUENCY OF SPECIFIED VISIBILITY RANGES AT SPECIFIED HOURS

REGION AND STATION	HOUR (LST)	RANGE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	YRS REC	
			<i>miles</i>														
Const: Kórkira*	0800	<1½	2	0	1	1	1	1	0	1	0	1	1	2	1	5-7	
		<2½	5	1	5	5	1	2	1	2	0	1	8	5	3	5-7	
		<0	16	11	22	23	10	10	7	11	7	7	13	21	13	5-7	
	1400	<1½	1	2	0	1	0	0	1	0	1	0	0	0	3	1	5-7
		<2½	6	3	1	2	1	1	1	0	1	3	1	10	2	5-7	
		<0	11	12	13	10	5	2	1	1	4	7	7	17	7	5-7	
	1900	<1½	1	1	0	1	1	0	0	0	0	0	1	0	1	**	5-7
		<2½	3	3	1	3	2	0	0	0	0	0	1	1	4	2	5-7
		<0	12	12	11	12	7	1	3	4	4	0	0	10	8	5-7	
Titograd*	0700	<1½	7	10	4	0	0	0	0	0	0	1	3	3	2	2-3	
		<2½	10	10	4	1	0	1	0	0	0	1	0	0	4	2-3	
		<0	18	20	10	6	3	3	0	1	0	0	11	21	0	2-3	
	1300	<1½	3	13	1	0	0	0	0	0	0	0	0	1	1	2	2-3
		<2½	0	19	1	1	0	1	0	0	0	3	2	0	4	2-3	
		<0	22	27	7	3	2	1	0	0	2	8	0	16	8	2-3	
	1900	<1½	2	0	1	1	1	0	0	0	0	0	0	1	3	1	2-3
		<2½	0	12	1	3	1	0	0	0	1	0	0	8	3	2-3	
		<0	18	24	6	4	3	1	0	0	3	4	10	19	8	2-3	
Uleinj*	0700	<1½	1	2	0	2	1	0	0	0	2	0	0	0	1	4-5	
		<2½	1	2	0	2	1	1	0	4	4	1	2	0	2	4-5	
		<0	7	7	1	2	3	1	0	5	8	3	6	4	4	4-5	
	1300	<1½	1	0	0	1	0	0	1	0	1	0	0	0	**	4-5	
		<2½	1	1	0	1	0	0	1	0	1	0	0	1	1	4-5	
		<0	4	5	1	2	1	1	1	1	2	4	2	4	2	4-5	
	1900	<1½	0	0	0	0	0	0	0	0	0	0	0	0	1	**	4-5
		<2½	3	0	1	0	0	0	0	1	1	1	0	1	1	4-5	
		<0	10	6	5	1	3	0	0	1	1	5	4	8	4	4-5	
Interior																	
Mountains:																	
Florina*	0800	<1½	28	12	8	5	2	2	1	0	0	10	11	23	9	2-5	
		<2½	46	29	22	10	6	0	3	1	10	20	25	35	18	2-5	
		<0	61	52	38	21	28	15	7	17	20	35	41	68	34	2-5	
	1400	<1½	22	12	10	7	4	2	0	1	0	10	9	19	8	2-5	
		<2½	44	26	23	23	22	6	2	2	5	22	27	29	19	2-5	
		<0	64	54	46	51	42	21	18	21	30	41	57	64	42	2-5	
	1800	<1½	57	28	27	30	14	18	10	0	7	16	10	56	23	2-5	
		<2½	60	43	32	40	38	28	16	3	18	30	29	70	34	2-5	
		<0	71	72	50	46	50	37	26	34	64	73	57	85	57	2-5	
Ioannina*	0700	<1½	15	11	9	3	2	**	**	2	0	12	14	16	8	0	
		<2½	23	20	20	17	11	3	7	9	13	15	17	17	14	0	
		<0	31	30	39	43	37	22	17	17	31	32	33	32	31	0	
	1800	<1½	4	4	3	4	0	0	0	0	1	**	**	0	1	0	
		<2½	11	14	12	11	6	1	2	0	8	2	1	2	6	0	
		<0	25	22	18	18	18	9	9	10	10	7	12	13	14	0	
	Po6*	0700	<1½	5	8	3	0	0	0	0	0	0	3	3	8	3	2-3
			<2½	9	15	3	0	0	0	0	0	1	4	7	13	4	2-3
			<0	27	26	7	6	4	0	0	0	1	12	17	27	10	2-3
1300		<1½	4	5	2	0	0	0	0	0	0	0	0	2	4	1	2-3
		<2½	8	8	2	1	0	0	0	0	0	0	0	3	8	3	2-3
		<0	24	21	6	5	6	0	2	2	4	7	17	26	10	2-3	
1900		<1½	3	6	0	0	0	0	0	0	0	0	0	2	4	1	2-3
		<2½	14	11	2	0	0	0	0	5	0	0	1	3	7	4	2-3
		<0	32	31	6	5	2	0	5	1	3	8	23	26	12	2-3	

\* Near but outside NIS 20 Area.

\*\* <0.5%.

FIGURE 20. MEAN NUMBER OF DAYS WITH FOG (VISIBILITY 2.0 MILES) AT SPECIFIED HOURS

REGION AND STATION	HOUR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	YRS REC
	(LST)														
Const:															
Gjirokastër.....	0700	4	3	1	2	2	1	1	0	1	11	0	5	30	3
	1400	1	0	0	0	0	*	0	0	0	0	0	0	1	3
	2100	*	0	0	0	0	0	0	0	0	0	1	0	1	3
Kërkira**.....	0700	1	2	1	1	*	0	0	0	1	*	1	1	8	0
	1000	0	0	0	0	0	0	0	0	0	*	*	1	1	0
Shkodër.....	0700	1	1	0	0	0	0	0	0	0	0	*	*	3	3
	1400	*	0	0	0	0	0	0	0	0	0	0	0	*	3
	2100	0	0	0	0	0	0	0	0	0	0	0	*	*	3
Tiranë.....	0700	2	1	2	0	1	0	0	0	0	1	1	4	12	3
	1400	0	*	0	0	0	0	0	0	0	0	0	*	1	3
	2100	1	0	*	*	0	0	0	0	0	0	3	1	0	3
Titograd**.....	0700	2	2	1	1	0	0	0	0	0	0	*	2	8	2-3
	1300	1	1	0	0	0	0	0	0	0	0	*	0	2	2-4
	1900	1	1	*	0	0	0	0	0	0	0	*	1	3	2-4
Uçinj**.....	0700	0	0	0	1	1	*	1	1	2	*	0	0	0	4-5
	1300	0	0	*	*	0	0	*	*	*	0	0	0	1	4-5
	1900	*	0	0	0	*	0	0	0	*	0	*	*	1	4-5
Interior Mountains:															
Flórina**.....	0700	3	1	1	0	0	0	0	0	*	*	1	2	0	0
	1000	2	1	1	0	0	0	0	0	0	*	1	1	0	0
Korçë.....	0700	3	1	2	1	2	1	0	0	*	1	1	3	14	3
	1400	2	1	*	0	0	0	0	0	0	0	*	1	4	3
	2100	1	*	*	0	0	0	0	0	0	0	0	1	3	3
Peë**.....	0700	3	2	1	0	0	0	0	0	*	1	*	2	0	1-3
	1300	1	0	0	0	0	0	0	0	0	0	1	3	5	2-3
	1900	1	*	0	0	1	0	0	0	*	0	*	3	5	1-3

\* <0.5 day.

\*\* Near but outside NIS 20 Area.

FIGURE 27. PERCENTAGE FREQUENCY OF SPECIFIED CEILING\* AND VISIBILITY COMBINATIONS AT SPECIFIED HOURS

REGION AND STATION	HOUR (LST)	COM-BINA-TION**	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	YRS REC
<b>Const:</b>																
Kórkira***	0700	A	94	94	94	99	98	100	100	100	98	98	95	95	97	7-0
		B	2	4	3	†	1	0	0	0	0	1	1	2	2	1
	1900	A	99	99	100	100	99	100	100	100	100	99	98	98	99	7-9
		B	0	0	0	0	†	0	†	0	0	0	0	1	†	7-0
Titograd***	0700	A	89	84	95	98	100	99	100	100	100	98	94	92	96	2-3
		B	7	10	5	0	0	0	0	0	0	2	3	3	3	2-3
	1300	A	89	77	99	99	100	99	99	100	100	96	97	94	96	2-3
		B	3	14	1	0	0	0	1	0	0	2	1	1	2	2-3
	1900	A	90	88	98	97	99	100	100	100	99	100	95	91	96	2-3
		B	3	6	2	2	1	0	0	0	0	0	1	3	2	2-3
Ulcinj***	0700	A	98	97	100	98	99	99	100	99	96	99	99	100	98	4-5
		B	2	2	0	2	1	0	0	0	2	0	0	0	1	4-5
	1300	A	99	99	100	98	100	100	99	100	99	100	100	99	99	4-5
		B	1	0	0	2	0	0	1	0	1	0	0	0	†	4-5
	1900	A	97	100	99	100	100	100	99	99	99	99	99	98	99	4-5
		B	0	0	1	0	0	0	1	0	0	0	1	1	†	4-5
<b>Interior Mountains:</b>																
Plorina***	0700	A	82	87	94	98	98	99	100	99	95	94	91	91	94	4-7
		B	17	11	3	1	1	1	0	1	3	4	8	8	5	4-7
	1900	A	77	88	93	97	98	99	98	99	97	94	92	92	94	4-7
		B	20	10	5	2	1	0	2	1	2	4	7	7	5	4-7
Ioánnina***	0700	A	70	78	79	84	88	97	93	91	86	84	82	83	85	8-9
		B	16	12	10	4	2	†	†	2	6	12	16	16	8	8-9
	1900	A	89	87	88	89	94	99	98	94	91	90	90	98	94	8-9
		B	4	4	3	4	0	0	6	0	1	†	†	†	1	8-9
Peč***	0700	A	91	85	97	100	100	100	100	100	99	95	93	87	95	2-3
		B	5	8	3	0	0	0	0	0	0	4	3	8	3	2-3
	1300	A	91	92	98	99	100	99	100	100	100	100	97	92	97	2-3
		B	4	5	2	0	0	0	6	0	0	0	2	4	1	2-3
	1900	A	89	89	99	100	100	100	95	100	100	97	97	92	96	2-3
		B	3	6	0	0	0	0	2	0	0	0	2	6	2	2-3

\* Ceiling herein is defined as  $\frac{1}{10}$  tenths cloud cover.

\*\* Combination:

A. . . . Ceiling  $\geq 984$  feet with visibility  $\geq 2\frac{1}{4}$  miles.

B. . . . Ceiling  $< 984$  feet and/or visibility  $< 1\frac{1}{4}$  miles.

\*\*\* Near but outside N18 20 Area.

†  $< 0.5\%$ .

FIGURE 28. MEAN NUMBER OF DAYS WITH SURFACE WIND SPEED  $\geq 28$  KNOTS

REGION AND STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	YRS REC
Coast:														
Bushkash.....	0	0	0	0	0	0	0	0	0	0	0	1	1	3
Durrës.....	1	4	2	2	0	2	0	0	0	2	2	2	17	3
Elbasan.....	0	0	1	0	0	0	0	0	0	0	0	0	1	3
Flor.....	0	0	*	1	0	0	0	0	0	0	0	0	1	3
Gjirrokastër.....	0	0	*	1	0	0	0	0	0	0	0	0	1	3
Sarandë.....	0	0	0	0	0	*	0	0	0	0	0	0	*	3
Shkodër.....	0	1	*	*	0	*	0	*	0	0	0	1	3	3
Stalin.....	0	1	1	1	0	0	0	0	0	*	0	1	4	3
Tiranë.....	*	*	0	0	0	0	0	0	0	0	0	0	1	3
Vlorë.....	*	3	2	3	0	0	0	0	0	*	1	1	10	3
Interior Mountains:														
Ersekë.....	1	2	*	0	*	0	0	0	0	0	*	0	3	3
Korçë.....	0	*	0	*	0	0	0	0	0	0	0	0	1	3
Kukës.....	*	2	1	0	0	*	0	1	1	*	0	*	0	3
Peshkopi.....	0	*	1	0	0	*	0	0	0	1	1	*	4	3
Pogradec.....	0	*	2	0	0	0	0	0	0	0	0	0	2	3

\* <0.5 day.

FIGURE 20. MEAN NUMBER OF DAYS WITH SURFACE WIND  $\geq 10$  KNOTS AND NO PRECIPITATION OCCURRING AT SPECIFIED HOURS

REGION AND STATION	HOURL (LST)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	YRS REC
Coast:															
Gjirrokastër.....	0700	*	0	1	0	0	*	0	0	0	0	*	0	2	3
	1400	1	1	*	3	2	3	4	1	0	*	*	1	10	3
	2100	*	*	*	1	*	1	3	*	*	*	1	1	8	3
Shkodër.....	0700	2	2	3	0	0	1	*	0	*	*	0	1	9	3
	1400	2	3	4	1	1	1	1	0	2	*	0	1	15	3
	2100	2	2	2	*	0	0	0	*	*	1	1	1	10	3
Tiranë.....	0700	0	*	0	0	0	0	0	0	0	0	0	0	*	3
	1400	0	0	0	1	0	*	1	*	0	*	0	*	3	3
	2100	*	0	*	*	0	0	0	0	0	0	0	0	1	3
Titograd**.....	0700	4	3	4	1	*	0	*	1	2	2	1	2	20	2-3
	1300	4	2	3	*	1	1	3	1	1	3	2	2	23	2-3
	1900	5	4	3	1	1	2	2	2	2	3	2	2	20	2-4
Uletinj**.....	0700	1	1	*	*	0	*	0	0	0	*	0	1	3	4-5
	1300	1	1	1	*	0	1	*	*	*	1	*	*	6	4-5
	1900	1	1	1	1	*	0	*	1	1	*	1	*	7	4-5
Interior Mountains:															
Korçë.....	0700	1	2	*	1	0	*	0	0	0	0	2	1	7	3
	1400	1	2	2	4	1	1	*	2	0	1	3	1	18	3
	2100	1	1	1	2	0	0	0	0	0	1	1	1	8	3
Pejë**.....	0700	0	1	1	1	0	0	0	0	0	0	*	*	3	1-3
	1300	0	0	0	1	0	1	*	1	1	0	1	1	7	2-3
	1900	0	*	0	0	1	1	0	0	0	*	1	0	3	1-3

\* <0.5 day.

\*\* Near but outside N18 20 Area.

FIGURE 30. MEAN NUMBER OF DAYS WITH SURFACE WIND 3 TO 10 KNOTS, TEMPERATURE  $\geq 32^{\circ}$  F. BUT  $< 90^{\circ}$  F., AND NO PRECIPITATION OCCURRING AT SPECIFIED HOURS

REGION AND STATION	HOOR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	YRS REC
	(LST)														
Coast:															
Gjirrokastër.....	0700	0	7	10	12	11	11	9	11	6	9	6	7	106	3
	1400	10	12	16	13	13	10	5	4	13	10	7	13	132	3
	2100	7	11	14	13	10	12	11	15	15	11	6	8	133	3
Shkodër.....	0700	3	2	2	6	3	7	7	7	4	4	5	2	52	3
	1400	7	6	11	15	13	16	12	11	15	10	6	3	123	3
	2100	5	4	5	6	6	9	10	8	7	6	4	4	76	3
Tiranë.....	0700	5	7	4	6	4	5	2	2	2	3	6	5	49	3
	1400	11	14	14	17	20	17	18	14	20	14	9	13	181	3
	2100	6	8	6	7	3	5	3	4	5	2	8	6	63	3
Titograd*.....	0700	4	4	5	7	7	7	15	19	11	7	5	6	96	2-3
	1300	4	4	9	17	18	16	11	10	12	7	9	5	121	2-3
	1900	3	3	4	11	14	16	13	15	12	5	5	3	104	2-4
Uleinj*.....	0700	13	10	14	10	8	5	4	5	9	15	16	10	128	4-5
	1300	14	8	11	12	13	13	15	12	9	9	13	12	142	4-5
	1900	10	8	10	11	12	10	12	14	8	7	12	12	125	4-5
Interior Mountains:															
Korçë.....	0700	2	5	3	5	4	4	3	3	4	4	3	3	43	3
	1400	0	5	7	10	12	15	18	12	10	12	7	6	120	3
	2100	4	3	6	9	6	5	5	7	8	5	3	4	65	3
Peç*.....	0700	1	1	3	7	8	6	3	8	5	4	2	2	50	1-3
	1300	3	3	8	14	14	10	11	7	8	5	5	3	91	2-3
	1900	0	1	8	11	12	10	4	5	8	7	3	4	72	1-3

\* Near but outside NIS 20 Area.

FIGURE 31. MEAN NUMBER OF DAYS WITH CEILING\*  $\leq 1,000$  FEET, VISIBILITY  $\leq 2\frac{1}{2}$  MILES, AND SURFACE WIND  $\leq 10$  KNOTS AT SPECIFIED HOURS

REGION AND STATION	HOOR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	YRS REC
	(LST)														
Coast:															
Titograd**.....	0700	21	19	25	27	29	29	28	28	27	25	24	23	303	2-3
	1300	19	16	24	25	25	27	23	27	27	25	24	24	287	2-3
	1900	20	18	23	27	27	27	26	26	25	26	24	24	292	2-3
Uleinj.....	0700	28	25	30	29	30	30	31	30	28	30	28	27	347	4-5
	1300	29	25	29	28	30	30	30	31	29	30	29	28	348	4-5
	1900	28	24	29	28	30	29	30	30	29	30	28	28	343	4-5
Vlorë.....	0700	30	na	25	na	30	30	31	31	30	28	25	29	na	1
	1300	30	28	29	25	25	22	23	na	na	30	25	26	na	1
Interior Mountains:															
Peç**.....	0700	28	23	28	29	31	30	31	31	30	29	27	26	342	1-3
	1300	28	25	29	28	28	29	30	30	29	29	27	28	339	2-3
	1900	25	24	30	28	30	29	30	30	30	30	28	28	341	1-3

na Data not available.

\* Ceiling herein is defined as  $\geq 6$ -tenths cloud cover.

\*\* Near but outside NIS 20 Area.

FIGURE 32. MEAN DAILY MAXIMUM AND MINIMUM TEMPERATURES (°F.)

REGION AND STATION		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	YRS REC
<b>Coast:</b>															
Bushkash.....	Max	48	50	55	64	77	81	88	91	81	70	57	52	68	3
	Min	30	30	33	43	50	55	59	57	52	45	30	32	44	3
Durrës.....	Max	54	55	58	63	70	77	82	84	84	77	70	63	70	3
	Min	41	43	43	52	59	66	68	70	68	57	52	43	55	3
Elbasan.....	Max	52	57	57	66	73	81	90	91	82	73	63	55	70	2-3
	Min	36	37	39	46	54	58	62	63	57	52	48	39	50	2-3
Flor.....	Max	54	55	57	64	73	82	89	88	81	73	63	55	69	3
	Min	37	39	39	46	54	59	63	63	57	52	46	39	50	3
Gjirokastër.....	Max	49	53	57	65	75	84	90	94	82	71	59	52	69	3
	Min	34	35	37	44	50	56	60	60	54	47	43	36	46	3
Kërkira*.....	Max	56	57	61	67	75	82	87	87	82	74	65	59	71	35
	Min	49	45	47	52	58	64	69	69	65	60	53	48	56	35
Lushnjë.....	Max	54	55	57	66	73	82	88	91	81	73	63	57	70	2-3
	Min	39	41	41	48	54	61	63	63	57	54	50	41	51	3
Pukë.....	Max	37	39	41	55	64	70	77	78	70	59	48	43	57	2-3
	Min	28	28	30	39	52	57	61	63	55	48	41	34	45	1-3
Shëngjin.....	Max	52	55	55	64	72	79	89	88	79	72	63	55	68	2-3
	Min	43	46	45	52	59	66	70	72	64	59	52	45	56	2-3
Shkodër.....	Max	48	49	54	63	73	81	88	90	80	69	57	51	67	3
	Min	36	35	38	48	56	62	66	67	60	52	46	38	50	3
Stallë.....	Max	54	57	59	66	75	82	90	91	82	73	63	57	71	3
	Min	39	37	37	46	54	59	61	61	55	50	46	37	48	3
Tiranë.....	Max	54	55	57	65	73	82	88	90	82	73	63	56	70	3
	Min	36	37	38	46	54	60	63	63	57	50	46	38	49	3
Titograd*.....	Max	45	46	58	69	74	80	93	94	81	70	59	53	69	1-3
	Min	35	34	41	50	55	65	72	72	63	55	44	39	52	1-3
Uroinj*.....	Max	50	50	56	64	71	79	84	85	79	69	59	55	67	4-5
	Min	41	40	44	52	58	66	70	69	65	57	48	44	54	4-5
Vlorë.....	Max	55	57	59	66	73	81	86	88	81	73	64	59	70	3
	Min	43	43	43	50	57	63	66	66	61	57	52	45	54	3
<b>Interior Mountains:</b>															
Çorovodë.....	Max	52	55	55	64	72	83	90	93	82	73	61	55	70	1-3
	Min	36	37	37	46	54	61	63	64	57	50	46	39	49	2-3
Korçë.....	Max	40	45	46	57	66	75	82	84	73	62	50	43	60	3
	Min	27	29	30	39	48	53	57	59	51	44	38	31	42	3
Kukës.....	Max	41	46	48	60	72	81	84	88	77	64	50	45	63	3
	Min	30	28	30	43	52	55	60	60	52	43	39	30	44	3
Lezhë.....	Max	39	41	43	54	63	70	77	79	68	59	48	43	57	3
	Min	30	30	30	41	48	55	61	63	54	46	39	33	44	3
Librazhd.....	Max	50	52	54	63	73	82	88	90	81	72	59	54	68	2-3
	Min	34	34	37	46	52	59	61	61	57	50	46	37	48	1-3
Pejë*.....	Max	35	35	47	61	67	77	82	84	76	62	48	42	60	1-2
	Min	25	23	31	42	49	58	60	59	52	44	34	30	42	1-2
Përmet.....	Max	50	54	57	66	75	82	91	93	82	72	59	52	69	2-3
	Min	36	37	39	46	54	60	63	64	59	50	46	37	49	3
Peshkopi.....	Max	39	45	46	59	68	77	82	89	75	63	50	43	61	3
	Min	27	28	30	41	50	57	61	61	54	45	39	30	44	3

\* Near but outside NIS 20 Area.

FIGURE 33. ABSOLUTE MAXIMUM AND MINIMUM TEMPERATURES (°F.)

REGION AND STATION		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	YRS REC
<b>Coast:</b>															
Bushat	Max	77	71	75	86	93	102	102	104	102	102	91	90	104	10
	Min	16	23	19	23	36	43	46	48	34	34	28	16	16	10
Durrës	Max	66	72	77	84	88	95	100	97	93	86	79	72	100	25
	Min	10	21	27	36	43	52	57	52	42	41	28	19	19	40
Elbasan	Max	81	82	79	88	93	100	106	106	106	102	93	75	100	13
	Min	3	21	30	30	39	46	50	43	41	36	30	32	3	13
Gjirokastrë	Max	93	69	82	86	93	102	104	108	104	95	79	66	108	10
	Min	16	19	25	28	33	41	41	48	39	32	19	7	7	32
Himarë	Max	93	73	72	77	86	93	91	95	95	81	77	70	95	3
	Min	30	30	30	37	41	55	59	57	55	48	41	30	30	32
Kabash	Max	64	75	70	84	84	95	100	102	86	88	72	61	102	7
	Min	1	5	0	21	34	48	50	50	30	34	25	3	0	20
Kallmet	Max	61	64	75	81	90	102	108	102	91	88	73	63	108	8
	Min	-2	19	21	30	36	48	50	48	41	34	23	0	-2	8
Kavajë	Max	66	70	77	82	93	100	102	102	95	93	79	72	102	12
	Min	10	21	27	30	37	48	52	54	46	36	27	19	19	12
Kërkira*	Max	68	72	76	83	94	97	101	106	100	87	82	70	106	40
	Min	25	23	27	37	45	50	46	54	41	39	27	27	23	40
Leshë	Max	72	75	75	86	100	109	115	108	102	95	82	77	115	8
	Min	16	21	23	25	41	50	55	54	48	36	23	19	19	20
Lushnjë	Max	77	86	84	91	97	102	102	104	99	90	88	80	104	9
	Min	10	23	21	30	43	48	52	48	50	39	27	25	10	9
Shkodër	Max	63	70	75	90	95	97	104	104	104	86	73	68	104	40
	Min	3	5	20	34	39	52	52	45	45	36	27	12	3	62
Stalin	Max	72	77	82	84	95	97	102	106	108	86	77	73	108	5
	Min	10	21	25	41	36	45	50	48	50	32	32	21	10	5
Tiranë	Max	70	75	81	88	95	100	108	105	104	97	97	82	108	23
	Min	14	16	12	28	36	46	46	48	36	32	19	18	12	32
Vlorë	Max	73	79	82	86	97	102	102	106	100	95	90	75	106	16
	Min	19	23	27	32	41	48	50	54	39	34	27	23	19	20
Xhafaotaj	Max	66	70	81	84	91	95	100	102	100	91	79	66	106	9
	Min	14	18	23	23	34	46	48	48	41	30	21	9	9	9
<b>Interior Mountains:</b>															
Korçë	Max	63	66	73	81	91	95	97	102	95	86	72	63	102	10
	Min	-4	0	5	13	19	41	45	43	30	27	18	-6	-6	19
Kukës	Max	63	72	81	81	91	99	99	104	95	82	70	72	104	4
	Min	9	0	12	28	32	46	52	50	39	30	3	0	0	4
Lanë	Max	80	59	70	70	79	89	89	91	89	72	59	57	91	3
	Min	12	-2	9	16	30	43	48	52	43	30	28	9	-2	2-3
Peë*	Max	50	61	63	77	79	86	90	95	93	79	63	64	65	1-2
	Min	-8	0	9	32	36	50	52	46	37	28	14	5	-8	1-2
Përmet	Max	63	70	82	82	93	95	102	106	102	84	70	70	100	2-3
	Min	21	18	23	34	37	50	57	55	48	36	34	21	18	3
Poshtëkopi	Max	59	66	66	82	86	91	106	97	99	89	79	61	100	5
	Min	6	16	19	27	39	46	46	48	39	23	10	5	6	5
Voskopojë	Max	64	73	79	82	82	90	93	99	86	80	81	61	93	11
	Min	-13	-11	-4	9	25	39	37	39	28	18	10	-4	-13	20

\* Near but outside N18 20 Area.

FIGURE 34. MEAN NUMBER OF DAYS WITH MAXIMUM TEMPERATURE  $\geq 50^{\circ}$  F.

REGION AND STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	YRS REC
<b>Coast:</b>														
Gjirokastrë	0	0	0	0	*	6	18	24	3	0	0	0	51	3
Shkodër	0	0	0	0	0	2	9	16	2	0	0	0	29	3
Tiranë	0	0	0	0	0	3	11	15	2	0	0	0	31	3
Titograd**	0	0	0	0	1	11	25	27	6	0	0	0	79	2-3
Ucinj**	0	0	0	0	0	1	5	6	1	0	0	0	13	4-5
<b>Interior Mountains:</b>														
Korçë	0	0	0	0	0	1	2	0	*	0	0	0	9	3
Peë**	0	0	0	0	0	0	3	7	1	0	0	0	11	1-2

\* < 0.5 day.

\*\* Near but outside N18 20 Area.

FIGURE 35. MEAN NUMBER OF DAYS WITH MINIMUM TEMPERATURE  $\leq 32^{\circ}$  F.

REGION AND STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	YRS REC
<b>Coastal:</b>														
Gjrokastrë	15	11	8	1	0	0	0	0	0	0	4	13	52	3
Shkodër	11	10	0	*	0	0	0	0	0	0	0	10	37	3
Tiranë	10	7	7	1	0	0	0	0	0	0	0	10	35	3
Titograd**	10	12	0	0	0	0	0	0	0	0	4	0	38	1-3
Ulcinj**	4	5	3	0	0	0	0	0	0	0	*	1	13	4-5
<b>Interior Mountains:</b>														
Korçë	24	17	20	3	1	0	0	0	0	1	6	18	90	3
Peë**	25	26	16	1	0	0	0	0	0	3	12	21	104	1-3

\* <0.5 day.

\*\* Near but outside NIS 20 Area.

FIGURE 36. MEAN RELATIVE HUMIDITY (%) AT SPECIFIED HOURS

REGION AND STATION	HOUR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	YRS REC
<b>Coast:</b>															
Bushkash	(LST)														
	0700	83	80	84	83	90	84	82	81	87	93	92	83	80	3
	1400	64	66	63	62	56	52	46	38	43	53	68	64	55	3
Durrës	2100	76	80	69	70	77	74	72	64	72	83	84	82	75	3
	0700	74	77	73	70	80	73	72	70	74	77	78	74	75	3
	1400	59	65	60	64	70	65	63	58	60	58	64	61	62	3
Elbasan	2100	71	75	71	73	78	72	73	71	74	75	70	71	73	3
	0700	73	88	81	78	84	78	67	69	70	77	70	70	77	2-3
	1400	52	57	52	53	58	53	30	30	47	50	62	60	52	2-3
Gjrokastrë	2100	61	85	74	78	85	70	70	70	80	81	78	78	77	2-3
	0700	90	90	87	85	87	76	72	70	84	94	95	92	85	3
	1400	71	66	56	53	55	44	33	28	42	57	74	71	64	3
Kërkira*	2100	84	84	75	74	70	67	55	52	66	85	80	86	75	3
	0800	81	70	80	70	78	76	73	73	70	81	80	72	78	20
	1400	70	60	60	60	64	61	55	64	60	68	70	72	65	20
Shkodër	0700	78	83	73	70	75	64	60	56	65	78	84	77	73	3
	1400	66	71	55	58	57	48	42	38	44	53	71	66	50	3
	2100	76	70	60	73	78	60	63	56	65	73	70	77	71	3
Tiranë	0700	81	82	70	81	86	73	71	71	82	87	86	83	80	3
	1400	53	58	54	54	60	40	41	36	43	52	64	60	52	3
	2100	76	70	76	70	86	75	71	71	76	83	83	81	78	3
Titograd*	0700	74	78	72	72	69	66	54	54	63	75	81	82	70	2-3
	1300	65	65	54	52	58	50	42	41	47	60	66	67	55	2-3
	1900	76	72	64	66	64	50	48	46	63	75	80	80	66	2-3
Ulcinj*	0700	78	73	71	73	76	73	70	70	72	77	70	76	74	4-5
	1300	71	68	62	65	68	67	61	60	61	66	67	67	65	3-5
	1900	74	71	66	69	71	66	63	64	67	73	73	73	69	4-5
Vlorë	0700	69	70	72	71	75	65	67	65	70	75	75	69	70	3
	1400	59	60	50	50	60	51	53	40	50	59	65	59	50	3
	2100	68	71	72	73	78	60	74	71	74	77	76	69	73	3
<b>Interior Mountains:</b>															
Brenkë	0700	84	80	82	74	78	60	63	62	70	84	86	82	77	3
	1400	71	64	58	49	53	43	35	29	42	52	60	67	52	3
	2100	82	73	75	69	76	67	60	55	68	77	83	79	72	3
Korçë	0700	82	82	70	74	76	66	59	58	74	83	87	83	75	3
	1400	73	65	60	51	53	41	32	28	43	53	73	72	54	3
	2100	80	79	72	68	73	64	55	50	64	73	82	81	70	3
Kukës	0700	87	82	81	75	81	71	70	69	81	88	90	84	80	3
	1400	74	62	60	50	50	44	39	33	42	50	74	71	55	3
	2100	82	75	71	66	67	60	55	52	61	74	80	80	69	3
Peë*	0700	88	86	81	74	70	76	74	69	79	89	89	90	81	2-3
	1300	80	74	58	54	50	39	38	30	52	60	75	79	63	3
	1900	87	83	70	59	65	67	65	55	64	78	83	80	72	2-3
Peshkopi	0700	86	81	81	75	81	73	68	65	76	84	90	84	79	3
	1400	77	69	62	52	54	47	42	37	47	59	77	74	58	3
	2100	84	76	73	67	71	63	57	54	64	74	86	80	71	3
Pogradec	0700	82	82	80	76	79	71	65	65	73	79	82	80	76	3
	1400	76	73	70	64	62	57	50	49	60	65	73	72	64	3
	2100	80	79	75	71	74	68	64	58	67	74	78	79	72	3

\* Near but outside NIS 20 Area.

FIGURE 37. MEAN PRECIPITATION (INCHES)

REGION AND STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	YRS REC
<b>Coast:</b>														
Baldob.....	5.8	4.5	2.7	2.4	3.3	1.6	0.5	1.0	2.2	4.3	6.8	5.2	30.8	14
Borat.....	3.1	2.4	3.1	2.3	2.9	1.4	0.8	1.1	3.2	4.3	4.6	5.0	34.2	30
Burrel.....	5.5	5.5	3.6	3.4	4.5	2.1	0.8	1.0	3.1	5.5	5.5	5.4	40.5	30
Bushat.....	8.6	6.0	5.5	4.1	4.1	2.1	1.2	2.7	5.2	9.7	8.2	9.4	67.3	30
Durrea.....	4.9	4.1	3.3	2.3	2.2	1.1	0.5	1.4	2.2	5.9	5.8	6.4	30.1	30
Elbasan.....	5.2	5.2	3.3	2.8	3.8	2.2	0.9	1.3	2.5	5.4	6.1	5.1	43.8	30
Flor.....	4.8	3.9	2.9	2.6	3.0	1.3	0.5	1.2	1.8	4.8	5.7	5.6	38.1	30
Goranxhd.....	11.2	8.5	5.0	3.3	2.0	1.2	0.8	1.0	3.1	7.4	11.9	11.1	67.4	30
Himarë.....	7.1	8.0	5.0	3.8	1.8	0.8	0.4	0.9	5.2	8.3	8.6	11.7	61.6	30
Kabash.....	10.0	9.1	9.1	5.8	7.8	4.3	2.1	3.9	9.9	17.3	12.3	14.0	102.0	21
Kallmet.....	9.1	8.0	6.4	4.8	5.2	2.2	1.5	2.4	5.0	9.0	7.7	9.2	71.1	30
Kavajë.....	5.4	4.8	3.2	2.0	2.7	1.4	0.7	1.3	2.0	5.0	5.0	6.0	42.5	30
Këthpult.....	8.7	7.4	6.4	5.0	7.2	3.2	1.8	3.5	6.1	13.1	9.3	11.0	82.7	30
Kontopol.....	11.0	3.7	5.6	6.1	3.8	0.6	0.3	0.3	6.2	6.0	7.3	13.6	65.4	4
Koplik.....	7.2	8.2	5.0	3.5	3.6	2.5	0.9	1.1	4.6	11.0	7.6	8.5	63.7	30
Krujë.....	7.5	6.4	5.3	4.8	6.2	3.1	1.5	2.8	3.5	8.1	8.8	8.7	60.7	30
Lushnje.....	3.7	3.4	2.6	2.4	2.3	1.1	0.0	1.0	2.4	4.9	5.5	5.3	35.2	30
Sarandë.....	7.9	5.5	3.8	2.2	2.3	0.8	0.2	1.3	4.1	8.4	11.5	11.0	50.6	30
Shëngjin.....	6.7	5.3	4.0	3.0	3.9	2.4	1.3	1.9	3.0	7.0	8.0	7.6	55.3	30
Shkodër.....	8.5	6.8	5.9	4.0	4.5	2.3	1.2	1.7	5.0	10.5	9.5	8.9	68.8	30
Topelend.....	9.5	6.3	4.5	2.6	3.2	0.9	1.3	1.3	3.4	6.4	8.3	9.5	57.2	30
Tiranë.....	5.2	4.7	3.9	3.4	3.9	2.4	1.1	1.5	2.9	6.2	6.0	5.6	40.8	30
Vlorë.....	5.8	4.0	2.9	2.4	1.9	1.1	0.4	1.0	2.6	5.2	6.0	6.7	46.6	30
<b>Interior Mountains:</b>														
Bilisht.....	2.7	2.2	1.0	2.0	2.4	1.9	0.9	1.3	1.7	4.0	4.1	3.5	28.0	30
Çorovodë.....	5.0	4.3	2.9	2.6	3.4	2.0	1.5	1.1	3.0	3.5	7.2	6.2	43.3	30
Degë.....	7.4	5.0	3.7	4.1	3.7	1.9	1.4	1.4	3.7	8.6	7.6	8.0	56.5	5
Ersekë.....	3.3	3.7	2.0	2.9	2.6	1.8	0.9	1.1	2.4	4.4	5.0	5.0	30.0	30
Fushë-Lurë.....	5.9	6.6	4.8	5.3	4.9	2.9	2.1	1.3	3.8	6.3	9.4	7.3	60.0	5
Gramsh.....	3.4	3.6	3.1	2.6	3.7	2.0	0.6	1.7	1.7	5.6	5.2	6.3	39.5	30
Këlyrë.....	6.0	5.4	2.8	2.0	2.3	1.6	0.5	1.0	2.5	4.2	6.7	6.5	41.5	13
Korçë.....	2.7	2.4	1.8	2.0	2.3	1.7	0.8	1.0	3.0	3.2	3.9	3.0	26.8	30
Kukës.....	3.4	3.4	2.0	1.9	3.7	2.4	1.1	1.7	2.3	5.1	2.1	4.5	34.2	30
Lemnushë.....	4.5	4.0	3.2	3.7	4.1	2.2	1.5	1.0	2.6	4.6	6.0	4.1	41.5	5
Lenë.....	8.1	7.6	4.9	5.3	7.1	4.0	1.1	1.2	4.1	7.1	9.6	9.4	69.5	5
Librazhd.....	7.0	5.3	2.6	4.0	4.1	2.2	1.2	1.9	2.6	6.6	6.0	6.1	50.2	21
Perat.....	5.2	6.3	5.2	4.0	2.8	2.2	0.2	0.4	3.3	7.5	6.0	13.0	56.7	6
Përmet.....	6.7	5.3	3.4	3.0	2.7	1.8	0.8	1.1	2.0	5.7	8.5	8.4	50.3	30
Peshkopi.....	3.7	4.5	3.0	3.3	3.0	1.9	1.1	1.0	2.4	4.0	4.4	4.1	30.6	30
Pogradec.....	2.5	2.5	2.0	1.8	2.1	1.3	0.9	0.9	2.0	3.4	4.3	3.5	27.2	30
Pustec.....	4.2	3.2	2.6	2.3	2.7	1.8	0.9	1.7	2.2	4.6	7.2	5.0	38.4	30
Qukës-Shkumbin.....	2.3	1.8	1.8	1.1	1.1	1.3	0.4	0.6	2.7	3.0	4.7	4.3	25.1	6
Theth.....	12.0	16.0	9.3	9.4	7.0	5.6	2.6	3.8	5.0	12.5	16.7	26.8	127.3	4
Tropojë.....	8.1	3.9	3.3	5.6	3.0	2.9	1.9	1.9	2.0	7.2	8.5	9.7	63.6	3
Voskopojë.....	3.1	3.3	2.5	2.8	2.6	1.7	1.2	1.3	1.9	4.6	5.6	5.4	36.0	30
Zerqan.....	3.8	5.4	1.8	2.5	3.0	3.3	1.5	2.4	1.7	5.1	4.2	3.4	38.1	5

FIGURE 38. GREATEST AND LEAST PRECIPITATION (INCHES)

REGION AND STATION		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	YRS REC
<b>Coast:</b>															
Burrel.....	Greatest	12.4	9.4	13.0	7.7	4.7	5.0	2.5	2.7	5.0	8.0	10.0	9.0	63.3	4
	Least	3.1	3.0	0.3	3.5	3.1	0.3	0.0	0.0	1.3	2.3	2.1	5.8	40.5	4
Dukat.....	Greatest	27.3	16.3	19.7	15.2	5.0	6.3	2.4	2.0	7.8	13.1	12.8	33.0	133.2	4
	Least	7.3	1.1	2.5	1.2	2.4	0.1	0.2	0.0	0.0	4.0	0.8	8.0	50.2	4
Durrës.....	Greatest	7.1	8.4	7.8	4.0	4.4	3.8	1.1	2.5	3.4	6.1	17.4	8.8	54.0	5
	Least	3.8	2.2	0.1	0.3	1.0	0.1	0.2	0.0	0.3	3.0	3.0	4.3	31.5	5
Elbasan.....	Greatest	9.3	10.0	9.5	6.3	7.0	4.5	2.6	2.3	6.0	5.7	9.0	8.4	50.1	5
	Least	2.2	0.7	0.3	2.8	2.4	0.3	0.0	0.0	0.7	2.0	3.7	3.3	40.0	5
Fier.....	Greatest	6.7	5.1	5.2	5.7	4.1	3.0	1.7	2.0	5.2	6.0	6.0	8.5	52.5	4
	Least	4.4	0.4	1.0	1.1	1.0	0.1	0.2	0.0	0.0	1.0	4.7	4.3	27.0	4
Gjrokastrë.....	Greatest	16.0	10.8	15.2	8.0	4.2	2.0	1.7	2.8	7.1	8.3	25.8	17.3	100.0	5
	Least	10.5	3.5	1.0	0.0	1.8	0.2	0.1	0.0	2.0	6.0	6.3	8.0	53.6	5
Korçë.....	Greatest	18.7	8.3	0.8	0.8	8.2	1.5	0.0	1.1	0.6	7.7	12.7	17.1	72.6	4
	Least	0.4	0.4	3.5	2.0	1.0	0.1	0.0	0.0	2.4	5.1	7.0	12.0	62.0	4
Lushnjë.....	Greatest	7.8	9.7	6.5	5.0	3.5	3.5	1.7	2.7	5.2	6.0	8.1	7.2	50.3	5
	Least	3.0	0.4	0.7	2.1	1.4	*	0.0	0.0	0.0	1.7	3.8	3.1	34.0	5
Pukë.....	Greatest	10.1	13.4	15.0	10.0	0.0	10.4	5.1	5.7	7.0	23.0	17.1	14.7	108.3	5
	Least	4.2	2.1	1.0	2.8	2.2	0.7	0.3	0.7	1.0	4.4	2.8	3.5	70.0	5
Shëngjin.....	Greatest	16.2	10.0	15.2	8.8	9.4	7.3	3.1	4.0	4.7	13.4	14.3	10.2	77.3	5
	Least	4.7	3.2	0.4	1.3	2.5	0.1	0.1	*	1.0	4.7	4.8	1.3	57.3	5
Shkodër.....	Greatest	20.8	16.3	20.1	14.0	10.1	6.1	4.1	5.0	13.5	21.3	21.1	16.0	na	30
	Least	1.7	0.2	0.0	0.5	0.2	*	0.0	0.0	0.0	0.8	0.2	0.6	na	30
Stalin.....	Greatest	7.8	7.4	5.0	4.0	8.0	3.5	3.0	2.3	3.2	7.0	8.3	5.0	40.0	5
	Least	3.4	0.3	0.7	1.3	2.5	0.2	0.1	0.0	0.8	2.4	4.3	2.5	32.7	5
Tiranë.....	Greatest	11.3	14.5	12.0	7.7	11.0	8.0	3.0	7.8	9.3	10.2	12.0	13.3	na	30
	Least	0.7	0.1	0.2	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.5	0.1	na	30
Vlorë.....	Greatest	11.0	10.3	9.4	5.5	5.7	4.5	1.4	4.4	8.0	14.5	11.7	10.5	na	30
	Least	0.5	0.5	0.0	0.6	0.1	0.0	0.0	0.0	0.0	1.0	1.3	0.6	na	30
<b>Interior Mountains:</b>															
Korçë.....	Greatest	5.2	4.0	3.0	4.3	4.0	2.0	2.3	3.2	3.4	3.0	2.8	5.0	33.5	5
	Least	1.3	0.4	0.4	1.3	2.2	0.4	0.0	0.0	0.8	2.7	2.8	1.0	25.4	5
Kukës.....	Greatest	6.0	6.0	0.8	4.5	5.3	2.9	3.2	2.8	5.7	8.2	8.4	4.7	45.2	5
	Least	2.0	1.0	0.1	1.0	2.1	0.5	0.1	0.0	0.4	1.3	1.0	1.0	35.0	5
Lemnushë.....	Greatest	9.4	6.2	7.4	4.0	4.0	4.4	2.8	2.2	3.7	7.0	7.0	6.1	48.1	5
	Least	1.7	0.1	0.3	2.5	2.0	0.7	0.2	0.0	0.8	3.0	4.7	1.7	36.3	5
Lenë.....	Greatest	13.0	11.8	10.0	8.4	14.3	8.3	3.7	3.2	8.0	11.0	13.1	14.0	75.7	5
	Least	1.8	4.2	0.9	3.7	3.0	1.4	0.0	0.2	0.2	4.7	4.0	5.0	61.0	5
Librazhd.....	Greatest	12.0	10.7	20.8	9.1	6.3	8.5	3.0	3.0	4.0	8.5	8.8	9.8	61.1	5
	Least	2.2	0.0	0.2	1.5	3.0	0.0	0.4	*	0.6	1.4	2.8	2.2	38.0	5
Përmet.....	Greatest	13.3	12.2	8.0	6.6	3.2	3.0	3.7	2.7	3.2	6.8	10.5	12.4	65.2	5
	Least	5.4	1.1	0.4	1.2	1.8	0.5	0.1	0.0	0.4	5.2	0.0	4.0	25.2	5
Peshkopi.....	Greatest	9.1	8.7	9.0	4.4	3.0	2.0	1.0	3.1	4.3	6.2	8.4	5.0	40.4	5
	Least	1.7	3.2	0.1	1.7	1.7	0.0	0.3	0.0	0.4	1.3	1.3	1.7	31.1	5
Theth.....	Greatest	17.3	24.2	19.4	15.0	9.8	9.3	4.7	8.4	7.0	19.0	25.7	33.1	143.0	4
	Least	8.5	4.0	0.4	5.0	2.2	1.0	9.7	1.0	1.3	8.7	10.2	22.0	103.1	4
Tropojë.....	Greatest	11.4	6.4	14.8	8.2	4.2	3.5	2.2	4.8	4.0	10.0	11.2	9.8	67.7	3
	Least	4.0	1.7	2.2	2.2	1.7	2.3	1.3	0.2	0.7	4.7	6.5	8.0	60.3	3

na Data not available.

\* < 0.05 inch.

FIGURE 30. MAXIMUM 24-HOUR PRECIPITATION (INCHES)

REGION AND STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	YRS REC
<b>Coast:</b>														
Burrol.....	1.7	1.0	2.0	1.5	1.7	1.4	1.5	0.7	3.2	2.7	1.7	2.0	3.2	4
Dukat.....	0.3	4.2	7.7	4.1	2.0	1.4	1.3	0.8	1.0	2.2	4.1	4.2	7.7	4
Durrës.....	1.7	1.4	1.4	1.5	1.3	1.7	1.0	2.5	2.8	2.8	4.3	3.8	4.3	10
Elbasan.....	1.0	1.5	1.2	1.5	1.5	1.0	1.1	1.7	3.7	1.7	2.0	1.2	3.7	5
Fier.....	2.7	2.0	2.0	1.7	2.2	3.0	1.6	2.0	2.0	3.4	3.8	3.5	3.8	22
Gjirrokastër.....	4.1	4.5	2.8	3.4	2.0	1.1	0.8	1.2	3.1	2.4	11.3	3.7	11.3	5
Kërken*.....	5.5	5.5	2.2	2.8	3.3	2.0	2.0	3.3	3.0	5.0	5.1	4.7	5.0	30
Lushnjë.....	2.4	2.0	1.7	3.0	3.5	1.0	1.4	1.3	2.8	6.0	3.1	2.4	6.0	22
Pukë.....	3.1	2.0	2.0	3.7	3.1	3.1	1.0	1.7	3.0	3.1	3.3	2.8	3.7	5
Shëngjin.....	5.2	2.1	2.4	2.0	2.0	3.1	1.2	1.0	3.0	2.8	4.0	2.4	5.2	5
Shkodër.....	1.0	2.0	3.1	4.0	2.7	2.4	3.8	1.8	0.1	8.2	3.7	2.0	8.2	10
Stalin.....	1.0	2.1	3.3	1.0	8.0	1.0	1.0	2.3	3.2	3.4	3.2	2.7	8.0	24
Tiranë.....	0.3	10.3	3.5	0.4	4.5	8.0	2.1	1.3	1.2	4.3	8.6	3.1	10.3	5
Vlorë.....	2.1	1.0	1.7	1.4	1.0	1.3	0.7	1.7	1.0	2.0	4.8	2.0	4.8	5
<b>Interior Mountains:</b>														
Korçë.....	1.1	1.5	0.7	0.0	2.0	0.6	0.8	1.8	2.5	1.2	2.0	1.0	2.0	5
Kukës.....	1.7	1.0	1.7	1.0	1.4	1.7	1.5	1.2	2.2	1.0	3.0	1.3	3.0	5
Lemnushë.....	1.5	1.3	1.4	1.3	2.0	0.0	1.4	1.2	2.3	2.0	2.1	1.0	2.0	5
Lezhë.....	2.7	3.2	1.2	1.7	2.2	2.2	1.1	0.0	2.3	2.0	2.3	2.0	3.2	3
Librahid.....	1.8	2.0	3.5	1.0	2.0	1.0	1.1	0.0	2.0	3.0	2.4	1.5	3.5	5
Përmet.....	3.2	2.7	2.2	2.3	1.0	2.0	1.1	1.3	2.0	3.0	4.5	2.2	4.5	5
Pushkopi.....	1.4	3.0	2.2	1.4	0.7	1.0	0.0	1.1	1.5	2.0	2.4	1.0	3.0	5
Thot.....	4.3	5.3	3.0	2.3	1.8	4.8	0.0	2.2	2.0	0.5	0.0	5.4	0.0	3
Tropojë.....	2.4	1.0	1.8	1.0	1.5	1.5	0.7	1.2	1.0	2.4	5.7	2.4	5.7	3

\* Near but outside NIS 20 Area.

FIGURE 40. MEAN NUMBER OF DAYS WITH PRECIPITATION  $\geq 0.004$  INCH

REGION AND STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	YR REC
<b>Coast:</b>														
Dallakh	18	8	10	11	9	5	2	2	4	9	11	12	90	5
Berat	8	8	8	6	9	4	3	4	5	7	7	11	77	21
Burrek	10	8	0	9	9	5	2	3	4	8	10	11	88	21
Bushat	10	10	9	8	6	5	2	4	6	11	12	13	96	21
Durrës	12	10	8	8	5	3	1	3	6	11	12	13	92	21
Elibasan	12	9	9	8	9	6	4	5	5	10	11	11	90	21
Fier	10	7	9	8	4	2	1	2	4	8	10	11	76	21
Goranzhi	10	8	0	9	8	3	1	1	3	7	9	12	80	4
Himarë	9	0	5	0	4	0	1	1	3	5	10	9	65	21
Kabush	13	10	12	6	7	0	4	0	0	1	12	12	95	21
Kallmet	11	9	9	10	10	5	3	4	0	9	12	12	100	21
Kavajë	9	8	0	6	4	3	2	2	3	0	8	10	67	21
Kërçipullë	11	10	9	8	10	6	3	5	5	10	12	11	100	21
Konispol	12	10	14	11	8	3	2	1	7	15	14	18	110	4
Koplik	8	0	7	5	5	5	2	3	5	9	10	10	75	21
Krujë	9	7	8	8	7	4	2	4	5	0	10	11	84	21
Lushnjë	11	0	7	7	5	3	2	2	4	7	8	10	72	21
Sarandë	14	10	9	6	5	3	1	2	5	10	10	14	89	21
Shkëngjin	10	8	8	8	7	4	2	4	5	10	12	11	80	21
Shkodër	11	10	9	8	8	5	4	4	5	13	15	15	107	21
Topelendë	9	10	7	0	6	4	0	2	3	0	9	8	70	21
Tiranë	12	10	11	11	10	6	4	4	0	11	13	12	110	21
Vlorë	11	8	8	8	6	3	1	2	4	8	8	12	79	21
<b>Interior Mountains:</b>														
Bilisht	9	5	7	7	5	3	3	3	4	7	7	8	68	21
Çorovodë	11	8	9	10	7	3	3	1	5	8	9	11	85	4
Dugë	12	15	12	12	13	5	7	5	7	9	14	15	126	5
Ersekë	8	0	5	7	6	4	3	3	4	5	6	7	64	21
Fushë-Lugë	15	13	15	15	17	14	9	4	0	10	10	16	150	5
Gramsh	7	8	7	9	7	4	3	2	4	4	9	10	74	21
Këllezë	15	8	10	9	9	3	1	2	4	8	12	11	92	5
Korçë	10	8	10	10	11	7	4	4	6	9	10	10	99	21
Kukës	6	0	5	7	10	10	3	3	5	9	12	11	87	21
Lomnashë	11	10	12	13	13	7	5	3	7	10	13	10	114	5
Lonë	12	11	12	10	10	8	7	6	8	8	11	14	123	5
Librahdh	10	8	8	9	8	5	3	3	5	8	10	11	88	21
Pezat	8	8	8	6	5	6	3	2	6	7	12	12	83	6
Përmet	10	7	7	7	7	3	3	3	4	7	9	10	77	21
Peshkopi	10	7	8	9	9	5	3	4	5	8	10	10	88	21
Pogradec	8	6	9	9	7	4	4	3	4	8	9	10	81	21
Pustoc	10	7	8	9	8	5	3	2	5	11	10	10	88	21
Qukës-Shkumbin	7	4	5	4	3	5	2	2	0	7	7	9	55	21
Theth	13	14	17	8	9	10	8	7	8	10	17	20	141	3
Tropojë	10	8	14	11	10	7	7	4	7	8	14	16	110	3
Voskopojë	13	6	9	8	8	7	3	5	6	9	9	10	93	21
Zarqan	8	7	0	6	7	5	3	3	5	8	7	11	70	21

FIGURE 41. MEAN NUMBER OF DAYS WITH SNOWFALL

REGION AND STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	YRS RNC
<b>Coast:</b>														
Bamatat.....	1	*	*	0	0	0	0	0	0	0	0	*	1	16
Burrel.....	2	1	*	0	0	0	0	0	0	0	*	2	5	15
Durrës.....	*	0	*	0	0	0	0	0	0	0	0	*	1	19
Elbasan.....	1	*	1	0	0	0	0	0	0	0	*	*	2	21
Fier.....	*	*	*	0	0	0	0	0	0	0	0	0	1	9
Gjirokastrë.....	3	2	0	0	0	0	0	0	0	0	*	1	0	9
Himarë.....	*	*	*	0	0	0	0	0	0	0	0	0	1	19
Kavajë.....	*	*	0	0	0	0	0	0	0	0	0	*	1	13
Krujë.....	1	1	1	*	0	0	0	0	0	0	*	*	4	20
Lushnjë.....	1	*	0	0	0	0	0	0	0	0	0	*	1	17
Pukë.....	6	6	4	1	0	0	0	0	0	*	2	4	22	13
Sarandë.....	*	*	*	0	0	0	0	0	0	0	0	*	1	13
Shëngjin.....	1	1	*	0	0	0	0	0	0	0	0	*	2	19
Shkodër.....	1	1	*	0	0	0	0	0	0	0	0	1	3	21
Stalin.....	1	*	0	0	0	0	0	0	0	0	0	*	1	16
Topolë.....	*	1	1	0	0	0	0	0	0	0	0	*	2	8
Tiranë.....	1	*	*	0	0	0	0	0	0	0	0	*	1	20
Vlorë.....	*	*	*	0	0	0	0	0	0	0	0	*	1	20
<b>Interior Mountains:</b>														
Bilisht.....	7	4	2	1	0	0	0	0	0	*	1	3	18	17
Ersekë.....	4	4	2	*	0	0	0	0	0	0	1	2	13	99
Korçë.....	7	4	4	1	*	0	0	0	0	*	1	4	21	20
Kukës.....	5	4	3	*	0	0	0	0	0	*	*	5	16	12
Librazhd.....	3	2	1	*	0	0	0	0	0	0	0	2	8	16
Permet.....	2	1	1	0	0	0	0	0	0	0	0	0	4	10
Peshkopi.....	7	4	3	1	0	0	0	0	0	0	1	4	19	15
Pogradec.....	4	3	1	*	0	0	0	0	0	0	*	2	10	19
Pustoc.....	5	4	2	*	0	0	0	0	0	*	1	3	15	14

Note: Definition of day with snowfall unknown.

\* <0.5 day.

FIGURE 42. ABSOLUTE MAXIMUM DEPTHS OF SNOW COVER (INCHES)

REGION AND STATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	YRS REC
<b>Coast:</b>														
Banattat.....	0.0	1.2	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	11
Burrel.....	10.3	11.8	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	5.0	10.3	14
Durrea.....	3.1	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	10
Elbasan.....	0.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7	0.4	21
Fier.....	8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	8.3	12
Gjrokastrë.....	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7	4.7	8
Himarë.....	0.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	10
Kavajë.....	5.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	5.1	10
Kërçipullë.....	20.5	15.8	15.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	40.2	40.2	0
Koplik.....	37.5	5.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3	37.5	10
Krujë.....	11.8	11.0	7.1	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	4.7	11.8	20
Lushnjë.....	1.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	10
Pukë.....	17.8	15.8	13.8	2.8	0.0	0.0	0.0	0.0	0.0	0.0	5.0	20.0	20.0	12
Shkëndër.....	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	14
Shëngjin.....	17.0	2.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	17.0	17
Shkodër.....	14.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	14.0	10
Stalin.....	8.3	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	8.3	17
Tepelenë.....	3.1	5.5	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	7
Tiranë.....	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	20
Vlorë.....	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	17
<b>Interior Mountains:</b>														
Bilisht.....	13.8	11.8	0.4	15.8	0.0	0.0	0.0	0.0	0.0	0.8	7.1	17.4	17.4	10
Ersekë.....	0.8	7.1	20.5	0.8	0.0	0.0	0.0	0.0	0.0	0.0	1.2	7.1	20.5	8
Korçë.....	7.0	7.0	5.0	10.2	3.1	0.0	0.0	0.0	0.0	0.0	0.7	5.5	10.2	10
Kulës.....	18.0	8.7	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	3.1	23.7	23.7	10
Librahdh.....	7.1	0.7	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	13
Përmot.....	11.8	5.5	13.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	2.4	4.7	13.0	15
Peshkopi.....	13.8	7.0	11.8	5.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	14.0	14.0	15
Pogradec.....	13.8	7.0	7.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	1.2	7.5	13.8	18
Pustoc.....	15.8	12.0	11.8	11.8	0.0	0.0	0.0	0.0	0.0	0.0	5.0	15.0	15.8	10
Zorqan.....	30.5	15.8	0.8	11.8	1.2	0.0	0.0	0.0	0.0	5.0	5.0	10.0	30.5	10

(BLANK)

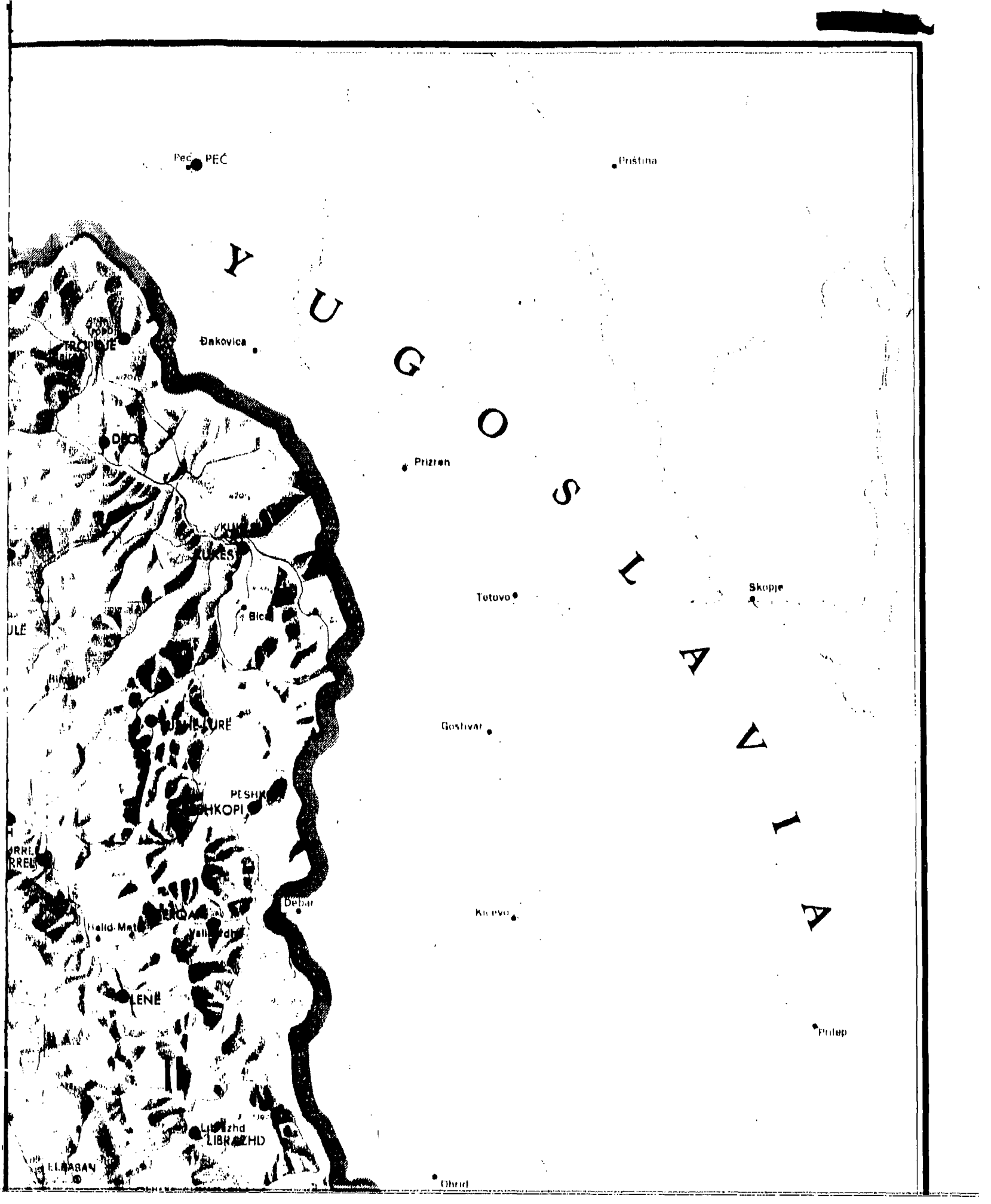
LIST OF STATIONS

	LATI- TUDE*	LONGI- TUDE*	ELEVA- TION	REGION AND STATION	LATI- TUDE*	LONGI- TUDE*	ELEVA- TION
	° 'N.	° 'E.	feet		° 'N.	° 'E.	feet
Coast:				Coast (Continued):			
Ballësh.....	40 36	19 44	623	Titograd**.....	42 26	19 17	174
Bamatat.....	39 56	20 04	321	Ulcinj**.....	41 55	19 13	328
Berat.....	40 43	19 57	741	Vlorë.....	40 28	19 29	11
Brindisi**.....	40 40	17 57	72	Xhafzotaj.....	41 20	19 31	49
Burrel.....	41 36	20 00	1,014	Interior Mountains:			
Bushat.....	41 58	19 32	66	Bilisht.....	40 37	20 59	2,919
Bushkash.....	41 40	19 55	567	Çorovodë.....	40 30	20 13	1,345
Dukat.....	40 15	19 33	1,230	Degë.....	42 15	20 07	1,738
Durrës.....	41 18	19 27	36	Ersekë.....	40 20	20 41	3,378
Elbasan.....	41 05	20 03	328	Flórina**.....	40 48	21 26	2,215
Fier.....	40 44	19 31	39	Fushë-Lurë.....	41 49	20 13	3,411
Gjirokastër.....	40 05	20 09	633	Gramsh.....	40 52	20 11	656
Goranihi.....	40 02	20 12	689	Ioánnina**.....	39 40	20 52	1,529
Himarë.....	40 06	19 45	98	Këlyrë.....	40 19	20 11	597
Kabash.....	42 04	19 55	2,198	Korçë.....	40 36	20 46	2,949
Kallmet.....	41 51	19 41	180	Kukës.....	42 05	20 24	836
Kavajë.....	41 11	19 33	53	Lemnushë.....	40 43	20 14	1,968
Kërkira**.....	39 37	19 55	89	Lenë.....	41 24	20 10	3,280
Kërthpulë.....	41 58	19 48	1,837	Librazhd.....	41 11	20 19	820
Konispol.....	39 39	20 11	1,312	Peç**.....	42 40	20 18	1,644
Koplik.....	42 13	19 26	190	Perat.....	40 05	20 35	1,132
Krujë.....	41 30	19 47	1,837	Përmet.....	40 14	20 21	853
Lezhë.....	41 47	19 38	23	Peshkopi.....	41 41	20 26	2,155
Lushnje.....	40 57	19 39	75	Pogradec.....	40 54	20 39	2,362
Pukë.....	42 02	19 54	2,657	Pustec.....	40 47	20 54	2,815
Sarandë.....	39 52	20 00	49	Qukës-Shkumbin.....	41 05	20 26	1,476
Shëngjin.....	41 49	19 35	66	Thessaloníki**.....	40 40	22 58	128
Shkodër.....	42 04	19 31	93	Theth.....	42 23	19 44	2,427
Stalin.....	40 48	19 54	90	Tropojë.....	42 24	20 10	1,289
Tepelenë.....	40 18	20 01	722	Voskopojë.....	40 38	20 35	3,870
Tirane.....	41 19	19 49	421	Zerqan.....	41 30	20 21	2,296

\* Coordinates give locations of weather stations and do not necessarily correspond to those for populated places.

\*\* Near but outside NIS 20 Area.





Pec PEC

Prishtina

Y  
U  
G

O  
S

L  
A

A

V

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A

Dakovica

Prizren

Totovo

Skopje

Gostivar

Kitovo

Pulep

Ohrid

PROBUJE

DRO

ULES

Bica

URE

PESHKOPI

Debar

LENE

LIBRAZHD

ELBASAN



KERIRAGHI

KAVAJË

ELBASAN

LIBRAZHD

SHKËRBËZ

PROLOZHINË

ELBASAN

LUSHNJË  
LUSHNJË

GRAMSH  
GRAMSH

GRADISHT

Skole e  
Semanit

PIER  
PIER

Stalin  
STALIN

BËRAT

EMNË

BALLESH

KOPOJË

POÇË

SAZAN

VLORË  
VLORË

COROVOD

Corovodë

KËRIRAGHI

Ujër  
Ftorë

TEPELENË

KËLCYRË

ERSEKË

DURRËS

Dukat

GËRMËR

Bar mesh

Dhëmi

HIMARË

GJIRKASTËR

GOVËR

OTHONOI

ERIKOUSA

SARANDË

SARANDË

SAMOTHRAKI

KERKIRA

GREECE

Kerkira  
KËRKIRA



## ALBANIA STATION LOCATIONS

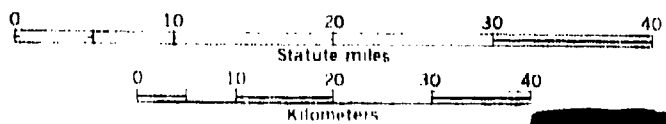
● METEOROLOGICAL STATION

*Locations are shown only for stations for which data are presented in text or tables*

DISCUSSION REGION BOUNDARY

I COAST

ii INTERIOR MOUNTAINS



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