

SHORTWAVE BROADCASTING IN BOLIVIA

A GEOPOLITICAL PERSPECTIVE

Kevin Atkins

Andean South America has fascinated DXers for decades. Drawn by the haunting huayño, the legends of the Incas, or just the challenge presented by a number of low-powered DX targets, we forfeit sleep to be at the dials in the pre-dawn hours, or hurry home from work and have dinner in the shack to catch a few moments of sunset signal enhancement. Perú, owing to its sheer number of stations, gets most of the press in DX publications, and typifies "Andean" in the minds of many. But Bolivia offers equally challenging and colorful targets, and for those who care to dig a little deeper, a glimpse at an unusual culture and the unique role radio has played, and continues to play, in this Andean nation.

GEOGRAPHY

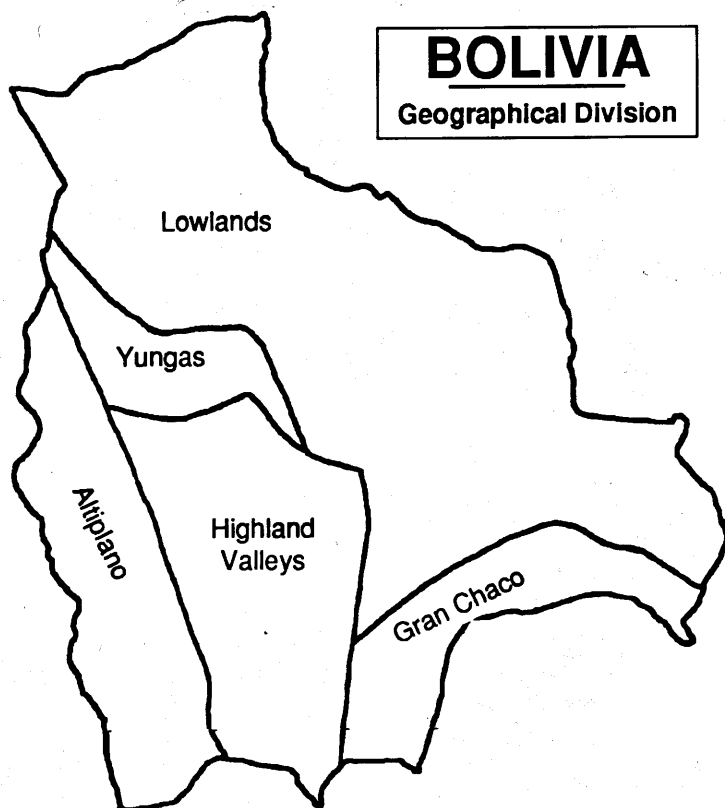
Bolivia's geography (or more specifically, its topography) has profoundly influenced the development of its society, by restricting the movement of people and material. Even today, overland travel between many parts of the country is impractical.

Modern Bolivia encompasses 1,098,000 square kilometers. There are five principle geographic regions: the Altiplano, the highland valleys, the Yungas, the Gran Chaco, and the jungle lowlands. With elevation ranging from the Andean heights to sea level in the jungle, climate is more a function of altitude than of latitude.

The Altiplano. The word "altiplano" means "high plain". This is the lofty platform between two ranges of the Andes, with an average altitude of 3500-4000 meters. The Andean peaks on either side rise as high as 6500 meters. The romantic images of Bolivia—an Indian boy tending a herd of llamas against a backdrop of impossibly beautiful mountains, for example—are rooted here. The Altiplano was home to the Aymara Indian civilization, and later to their Inca conquerors. But for all its overwhelming magnificence, it can be an inhospitable place. The winds are often bitter cold, and the rarified air at this altitude is not exactly conducive to good health and long life. Modern Indians continue to scratch out a physically demanding subsistence lifestyle, farming and tending domestic animals, while visitors from the lowlands have difficulty climbing a flight of stairs. The defacto capital city, La Paz, is located here, as well as the mining city of Oruro.

The Highland Valleys. The most pleasant climatic conditions in Bolivia are found in these hills and valleys at the base of the Andes. The temperate climate makes agriculture a less tortuous affair, and many crops flourish here. Cities in this region include Cochabamba, Sucre, Tarabuco, Potosí, Tupiza and Tarija.

The Yungas. North of the highland valleys lies this transitional zone between the Andes and the jungle. The area is an agricultural breadbasket. The principle town in the region is Coroico.

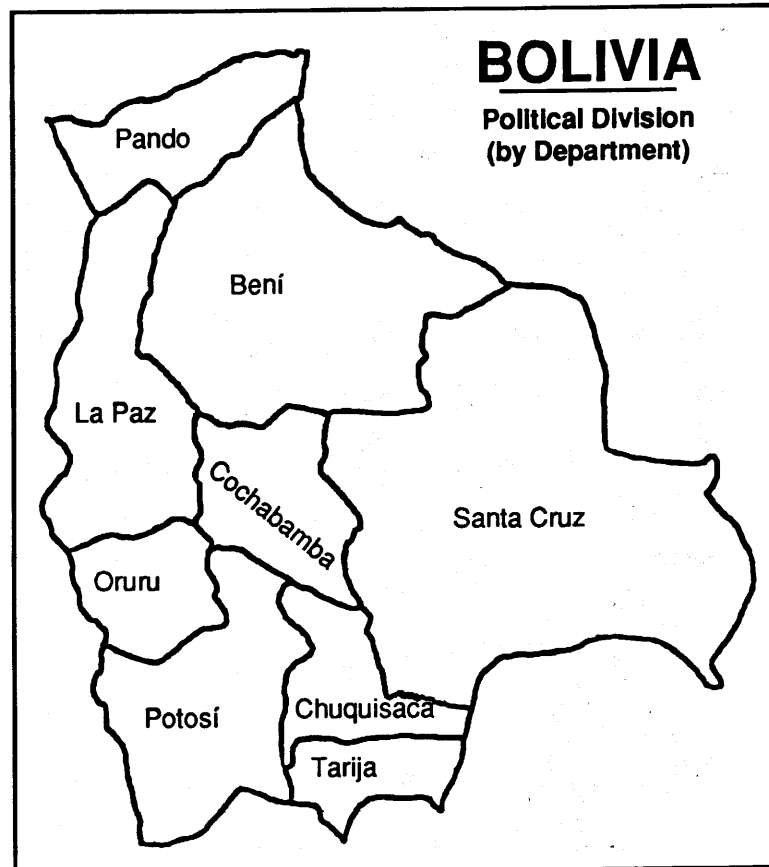


The Grán Chaco. Bolivia fought (and lost) a war with Paraguay over this region—a mostly-uninhabited expanse of scrublands. Villa Montes and Yacuiba are the principal towns.

The Lowlands. The swamps and rainforests of the lowlands comprise 60% of the total area of the country. While some highlanders have resettled here, much of the population is immigrant. If the Altiplano is the home of Bolivia's past, the oil and gas resources of this region are her future. Small settlements can be found along the many rivers, and the boom-town of Santa Cruz lies at the edge of the region.

Modern Bolivia is only half the size of the Bolivia that declared its independence from Spain in 1825. Large tracts of Bolivian territory have been lost in wars and disputes with neighbors. Most recently, Bolivia lost a portion of the Grán Chaco region to Paraguay in the Chaco War of 1935—an event some historians point to as an early catalyst contributing to the 1952 revolution. Brazil, Argentina and Perú have also absorbed portions of Bolivia, but Chile struck the most grievous blow in 1884 in the War of the Pacific. Chile was victorious against

the alliance of Bolivia and Perú, and seized Bolivian territory on the Pacific coast, landlocking Bolivia completely. A sign on the customs office in modern Copacabana reads, "*Bolivianos: El Mar Nos Pertenece. Recuperarlo Es Un Deber.*" (Bolivians: the sea belongs to us. To recover is our duty.) There's little chance of this ever happening, but various governments have found the idea useful for whipping up popular sentiment, and some negotiations with Chile took place in the 1970s. In the meantime, Bolivia's navy—complete with several admirals, but no boats—remains on standby! [3, 8]



THE SOCIAL ORDER

Bolivia is the most 'Indian' of all South American nations. About 60% of the population is made up of the descendants of the Incas and the Aymaras—the Indian peasants, or *campesinos*. Many of them are monolingual speakers of Quechua or Aymara, and most of those who speak Spanish do so as a second language. They wear the traditional dress worn by their ancestors for centuries. So strong is the tradition that it is possible to tell what part of the country a campesino woman hails from by identifying the style of felt bowler hat she wears.

Unfortunately, dress is not the only thing they have in common with their ancestors. They have also inherited a life expectancy of less than 50 years, a high infant mortality rate, and a low literacy rate. While the 1952 Revolution forced Bolivia to accept the campesinos as part of society, much remains to be done in terms of sharing society's benefits with them. Still, agrarian reform has freed many from the virtual slavery of the hacienda system imposed by Spain after the conquest of the Incas. And universal suffrage means that although the government can still deceive and exploit the campesinos, it can no longer simply ignore them.

Prior to the revolution, social status was mainly a function of race. The Indian majority was dominated by the *gente decente* (the 'whites', usually monolingual Spanish speakers of direct European descent). In the middle were the *cholos*, lower and middle classes of mixed ancestry who were usually bilingual but dressed and behaved more like Europeans. But the blurring of race distinctions over the years, along with the reforms of the revolution, have softened the boundaries between the classes somewhat. Social status is now more a function of behavior than anything else. Many residents of the cities are of campesino origin, but have learned Spanish and forsaken Indian dress to become middle class workers and shopkeepers. That is not to say that the climb is an easy one, given the conditions into which most campesinos are born, but there are no formal barriers to keep them from trying. [3]

POLITICS IN MODERN BOLIVIA

One does not embark on a study of Bolivian politics lightly. The subject is a murky and confusing one, and any attempt to write a 'brief sketch' inevitably leads to oversimplification. But radio broadcasting in Bolivia is linked, for better or worse, to politics, and an understanding of what has transpired in the political arena in recent years is a necessary prelude to discussion of certain aspects of broadcasting.

The current government is the 189th since independence in 1825. Some governments have lasted only days. In the history of Bolivian politics, the *golpe de estado* (literally, 'blow against the state') has been as common a means of attaining power as the electoral process. Thus Bolivia has earned the reputation as being the most politically unstable country in Latin America.

Many of the governments have at least been colorful in their ineptitude. For example, General Mariano Melgarejo, the president in 1870, was a great admirer of Napoleon. He was also an avid consumer of alcohol, and while in an impaired condition, he sent his army to the aid of France in the Franco-Prussian war—*marching overland*. He sobered before having to deal with marching across the Atlantic Ocean, and ordered his troops back to Oruro, saying "The Emperor will know we have done our best."

The 1952 Revolution. The most significant political event in Bolivia's recent history was the popular revolution of 1952. It provides a starting point for the historical background necessary to understand Bolivian politics today.

The left-of-center party *Movimiento Nacionalista Revolucionario* (MNR) and its presidential candidate, Víctor Paz Estenssoro, won the election of 1951 with a straight majority. In a bid to prevent the MNR from coming to power, the military illegally accepted the resignation of the outgoing president and appointed General Hugo Ballivián president. Ballivián annulled the elections and outlawed the MNR as a communist organization.

In response to the military's power play, the MNR moved to take control of the government by force. On April 9, 1952, the armed struggle began. The growing labor movement, lead by the tin miners' union, was armed, as were the Indian peasant masses. In three days, the army was defeated.

The MNR Era: 1952-1964. The MNR assumed power, but in reality it was labor and the peasants who made the difference between a "routine" golpe and a sweeping national revolution. The MNR and now-president Victor Paz Estenssoro were reformers, but not hard-core revolutionaries. But the forces set in motion by the arming of the vast underclass could not be easily controlled. Literacy requirements which had denied political participation to the majority of the population were swept aside with the declaration of universal suffrage. The army was reduced in size and influence. The largest tin mines were nationalized and placed under the control of the newly-founded *Corporación Minera de Bolivia* (COMIBOL). (Notably, certain U.S.-owned mines were excepted; the U.S. intervention then underway in Guatemala was duly noted.) Finally, land reform gave land titles to the Indian peasants who had worked the land for generations under the hacienda system.

Victor Paz Estenssoro and other MNR leaders, notably Hernán Siles Zuazo, took turns at the presidency for the next twelve years. But the financial costs of the revolution, paid by simply speeding up the printing presses, began to erode support for the MNR in some sectors of society. The government turned to the United States for aid, but the politically-unpopular strings attached to that aid divided the leadership of the MNR. The U.S. insisted on a harsh International Monetary Fund plan designed to balance the government's budget and cut the inflation rate. Paz, in the fourth year of his second presidential term in 1964, embraced the plan and leaned to the right, while centerist Siles and left-leaning Juan Lechín split with the MNR entirely. Paz had been strengthening the military (purportedly to prevent communist subversion), and he picked his vice-presidential candidate for the 1964 elections, General René Barrientos, from its ranks. Stripped of the support of the left and center and dependent on the army, Paz was overthrown a few months after his re-election and Barrientos became president. Thus ended the twelve-year Revolution—the army once again dominated politics. But the miners and Indian peasants awakened during the Revolution would remain a powerful political force. [3, 4]

Military Rule: 1964-1982. Bolivia was governed by "the generals" for the next eighteen years. Barrientos set the tone by attacking his most potent opposition—the tin miners—almost immediately. Government troops and rebellious miners battled often; the most notable instance was a massacre of miners by government forces at the Catavi-Siglo XX mining center.

Barrientos died in a helicopter crash in 1969. Several golpes later, in 1971, Colonel Hugo Banzer Suárez began a presidency that lasted until 1978. Like Barrientos before him, Banzer attempted to curry favor among the peasants while grinding the miners' union under his bootheel. In this he was largely successful. The support of the Indian majority was ensured by the continuation of the agrarian reform and granting of land titles begun after the 1952 revolution.

Banzer may be the only Latin American dictator ever to stage a *golpe* against his own government. He had allowed various rival parties (notably the MNR) token participation in his government. But in 1974 he announced a

sweeping restructuring of the government in which *all* parties—even conservative ones—were banned. Banzer thus sought to emulate Pinochet in Chile, achieving 'stability' through the total suppression of dissent. He overestimated his support, though, as he was deserted by first one camp, then another. Finally he lost the support of his own military, and in 1978 he was forced to step down. [3]

Towards Civilian Rule. There were sputtering attempts at both civilian and military rule over the next four years, including a *golpe* or two. General García Meza presided over a particularly brutal period when the tin miners endured repeated military assaults. Hernan Siles Zuazo re-established civilian rule and took the presidency in 1982, but his main contribution was hyperinflation, peaking at 24,000% in 1985.

Victor Paz Entessoro regained the presidency in 1985 and inherited the basket case that was the economy, which he placed in the hands of his Minister of Economy, Gonzalo Sanchez de Lozada. Through a program of economic shock therapy, Sanchez engineered an economic recovery that brought the inflation rate down to 10%. It was thus no surprise when the MNR chose Sanchez as its presidential candidate in 1989 after Victor Paz Estenssoro, at age 80, announced his retirement from politics.

The Last Shall Be First. Sanchez, by virtue of his reputation, was the early favorite to win the election. His two main opponents were Jaime Paz Zamora of the *Movimiento de la Izquierda Revolucionaria* (MIR, the Movement of the Revolutionary Left) and Hugo Banzer, the military strongman from the seventies—proof that old dictators don't die easily. It might seem incredible to those accustomed to a democratic tradition that a dictator with a good deal of blood on his hands could present a viable challenge in a free election. But the economic turnaround engineered by Sanchez had not been without political cost. While it looked good on the balance sheets and made the International Monetary Fund and various bankers happy, the draconian measures it required hit labor and the peasant masses especially hard, and the benefits of the turnaround were slow to reach the bottom of the economic ladder. Many people longed for 'the good old days' under strongmen like Banzer, who gave out land titles with one hand while crushing dissent with the other. When the votes were counted, Sanchez and Banzer were virtually dead-even, each with 27% of the vote. Jaime Paz Zamora had 22%, with the rest divided among several also-rans.

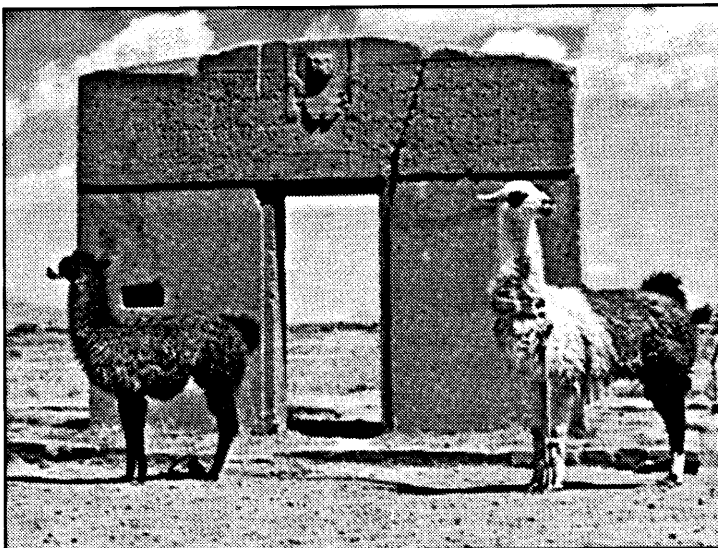
Bolivian law mandates that a presidential candidate must win a straight majority in an election. If no candidate does, the congress chooses the president. In fact, Banzer had won the 1985 presidential elections, but lacked the necessary majority, allowing the MNR to win the congressional vote on the strength of an alliance with the MIR. Fearing he would again be denied his chance to govern, Banzer instructed his party (the ADN, *Acción Democrática Nacional*) to vote for Jaime Paz Zamora, forming his own alliance with the MIR. In return, Paz Zamora accepted a member of Banzer's party as his vice president, and Banzer himself was given the presidency of a powerful commission that wields much of the real power behind the scenes. Thus the leftist Paz Zamora, who was actually jailed by Banzer in the seventies, became president, with Banzer, the former right-wing dictator, pulling his strings. Both have pledged to continue the economic policies of Sanchez, whose candidacy they derailed. [9]

THE PAST AND PRESENT OF SHORTWAVE RADIO IN BOLIVIA

The Bolivian government established Radio Illimani in the 1930s. The station is in La Paz, and is named for the Andean peak that towers over the city. There are stations in Bolivia with the official-sounding phrase *Radio Nacional* in their names, but none of these have any government connection; Illimani is the sole government voice on shortwave. The station's history includes a takeover by rebel forces during the 1952 revolution. It was the only station on the air from La Paz on April 9th and 10th of that year, and thus played a critical propaganda role in the success of the revolution.

The Bolivian military has in the past operated at least two stations on shortwave—Radio Batallon Topater and Radio Batallon Colorados. As we have seen, sometimes the military supports the government in Bolivia; sometimes, it *becomes* the government. Thus it would not be precisely correct to call these stations government broadcasters, although the transmitters could be easily appropriated if the military sought to assume direct control of the country. They are essentially commercial stations in their day-to-day operations. Unfortunately, both seem to be inactive at this writing.

Aside from Radio Illimani and the mil-



itary stations, shortwave stations in Bolivia fall into one of three general categories—commercial, religious, or the unique network operated by the tin miners' union. Stations in all three categories have been profoundly affected by the activities, antics, and atrocities of the various governments.

Commercial stations like Radio Panamericana and Radio El Mundo are run much like commercial operations in the rest of Latin America. Contemporary and traditional music, news, sports and drama are normal programming fare. The more established stations in the larger cities derive income from conventional advertising, while the smaller stations (particularly those in isolated areas) fill a niche much like that of the rural Peruvian broadcasters. *Comunicados* and song dedications are a principal means of income, along with commercials for local businesses.

While not political by definition, commercial stations have run afoul of the government in the past. Stations have been shut down, and in some cases have pulled the plug themselves rather than abide by whatever conditions the government sought to impose. Other stations have succumbed to the indirect sort of government interference that has long plagued Latin America—economic fiascos that force struggling businesses of all sorts into ruin, for example, or the lack of government commitment to provide a transportation infrastructure for moving goods (such as transmitter tubes!).



Religious stations in Bolivia bear little resemblance to those in North America. A number of Catholic and Protestant organizations fund broadcasting missions in Bolivia, but while the 'religious' designation may indicate affiliation with such a group, it does not necessarily mean that programming is restricted to sermons. Educational and health programs are equally common; the Catholic church, in particular, is very much a force for social change in Bolivia and the rest of Latin America. Radio Juan XXIII opens its broadcast day with a program of Bolivian folk music for its campesino audience—recognizing, perhaps, that they must catch the ear before saving the soul.

This mixture is not at all incongruous, given the overall context of Christianity in the Indian world. Campesinos who accept the 'new' religion generally do not abandon their previous beliefs; they merely graft the new onto the old. A miner may attend Mass regularly, but he would not go into the mines without making an offering to one of the gods his ancestors have worshipped for centuries. Many campesinos celebrate the Fair of Abundance, dedicated to

the Inca god Ekeko, as fervently as the *Festividad de Nuestro Señor Jesús del Grán Poder* [1].

Radio Pio XII is unique among Bolivia's religious stations. The station was established at the Siglo XX mining camp in 1960 by the Catholic Oblate Fathers. It was originally intended to compete with La Voz del Minero for the hearts and minds of the miners. It took an anti-communist stand that was none too popular with the leadership of the miners' union, and competition between the stations was more intense than anyone had bargained for. But Pio XII sided with the miners after witnessing the military's atrocities under General Barrientos in 1964. Barrientos had the station destroyed, but it later returned to the air, and has since been considered a part of the miners' network. Ownership remains in the hands of the Catholic Oblate Fathers, who also champion the cause of the campesinos. [6]

The tin miners' network is the most fascinating part of the Bolivian radio story. It has no real parallel in Latin America, and perhaps not in the entire world. To call the miners' stations a 'network' is actually a liberal use of the term, as there has never been any attempt at nationwide conformity or coordination in the formal sense. On the contrary, the localized individuality of the stations is really part of the phenomenon. The stations are, for the most part, owned and operated by the miners themselves at the various mining centers, with programming designed to serve their own needs as a community. They become a 'network' only when the union is threatened by outside forces—i.e., the government.

Communications scholars Fernando Lozada and Gridvia Kunar, cited in [6], identify three roles for these stations:

"In 'normal' times of democracy the radios link the miners' union and its members, and the everyday culture of the miners and campesinos. In times of emergency, when the country and the workers face a military coup, the stations form a network of resistance against the approaching armed forces, broadcast decisions made at public and organizational meetings, and allow union leaders and members, women, and students to offer advice, encouragement, or criticism. Finally, in times of military control, when the stations are closed, they are a focus of underground organizing, and the people demand their return to the airwaves."

The first record of a miners' union station in Bolivia is La Voz del Minero at Llallagua/Siglo XX. Several

versions of its founding have been published, placing its beginning sometime between 1945 and 1952. Generally, though, the 1952 Revolution may be thought of as the beginning of the miners' network, because the reforms that resulted from the revolution made the spread of miners' radio possible. The number of stations peaked at around 24 in the 1960s. The stations have been forced off the air for long periods of time while various military regimes held power, notably those of Generals Barrientos, Banzer and Meza.

Programming emphasizes local culture, with folk music, poetry, drama, sports, and community and social news. Since financing comes from union dues, there are almost no advertisements. But during the aforementioned 'times of emergency', the programming changes dramatically, as shown by the following translated excerpts from broadcasts in July, 1980, during the coup of General García Meza:

"The troops are approximately five kilometers from Siete Suyos and very near Santa Ana... therefore we are preparing to defend ourselves... This is *Radio Animas* for all the south of the county."
[And from *Radio Nacional Huanuni*:] "...at any moment our miners' radios may be closed down, but the Bolivian people and especially the mine workers continue the indefinite general strike with the aim of obtaining the democratization of the country." [6]

These are not alarmist ravings or empty words. Force has been employed against miners' union stations no less than 70 times, and hundreds of miners, and the wives and children of miners, have been killed defending their stations and, by extension, their way of life. Stations have been besieged and attacked by the army and bombed by the air force. While the miners comprise only a fraction of a percent of Bolivia's population, they constitute the militant backbone of the labor movement. The government's practice of using force against the miners actually predates the miners' first station: December 21 is celebrated as the Day of the Miner, commemorating a massacre of miners at the Siglo XX mining center in 1942. The military has always felt threatened by them and, perhaps most of all, their radio stations, which they recognize as communications centers for mobilizing opposition.

Since Bolivia is currently enjoying a relatively long period (since 1982) of civilian rule, one would think the tin miners' stations would be flourishing. Actually, they are facing what may be the most serious challenge ever to their existence. The 'enemy' is once again the government, but economics has replaced guns and bombs. Part of Gonzales Sanchez de Lozada's economic shock therapy was the selling or closing of many of the unprofitable tin mines, and scaling back operations at others. Estimates vary, but certainly fewer than 25% of the miners nationwide have retained their jobs. The remainder have been forced to accept the government's offer of a one-time unemployment payment of approximately \$1,000 and relocation to another part of the country. A financial correspondent in La Paz reported:

"At Huanuni, 150 miles south of La Paz, half the miners have lost their jobs. Many of those without regular work have built themselves mud shacks near the river, where they pan for left-over tin trickling down from the mine. If they are lucky they may make \$40 a month, stooping in contaminated water, seven days a week. Other former miners have moved to Bolivia's tropical lowlands, making sure the country remains the number-two grower of coca leaf." [9]

Huanuni is, of course, the home of Radio Nacional Huanuni, the largest and best-equipped of the miners' stations. Since the mines at Huanuni are still operating at a reduced capacity, the station remains on the air. But where mines have been completely shut down, the stations are sure to follow. The government is not exactly enthusiastic about saving the stations, either. Many have had their licenses revoked by the government for non-payment of licensing and frequency-use fees. In 1989, the miners' union negotiated a package deal with the government to reduce the total amount of fees due from the stations from \$100,000 to \$64,000. In addition, some stations which never had licenses were ordered to make a deposit of 10% of their declared capital. With fewer than one-fourth of the miners still working and thus financially supporting the union, the future of the stations does not look promising. Even stations at some of the active mining centers don't have enough money to maintain their equipment. [7]

THE FUTURE OF SHORTWAVE BROADCASTING IN BOLIVIA

There are some reasons for optimism about the future. In the long term, the very forces that currently threaten the miners' stations may help ensure the survival of commercial broadcasters. While far from complete, the economic turnaround in Bolivia stands in marked contrast to the nightmare of Perú, and foreign investment in the country is on the increase. There is no reason that the economic growth to come should not affect broadcasting in as positive a fashion as it does business in general. The government has also relaxed the tariff on imports to 10%, making studio equip-

ment and replacement parts more affordable.

The great exodus from shortwave to mediumwave in Latin America has not so far reached epidemic proportions in Bolivia, due in part to the need to reach an often remote listenership. The resettlement of miners and campesinos in the jungle lowlands may actually increase the need for shortwave, and the former tin miners in particular should bring an appreciation for radio to the jungle. They probably won't be bringing any transmitters, of course, but some of them might have the desire to acquire one and the knowledge to get it on the air. The desire to spread ministries to the new frontier might even lure more religious broadcasters to the lowlands. In any case, further development of the lowlands is inevitable as the government seeks to deemphasize mining, long the mainstay of Bolivian exports, and encourage oil and natural gas production and agribusiness. With that development will come new population centers, and the potential for new broadcasters.

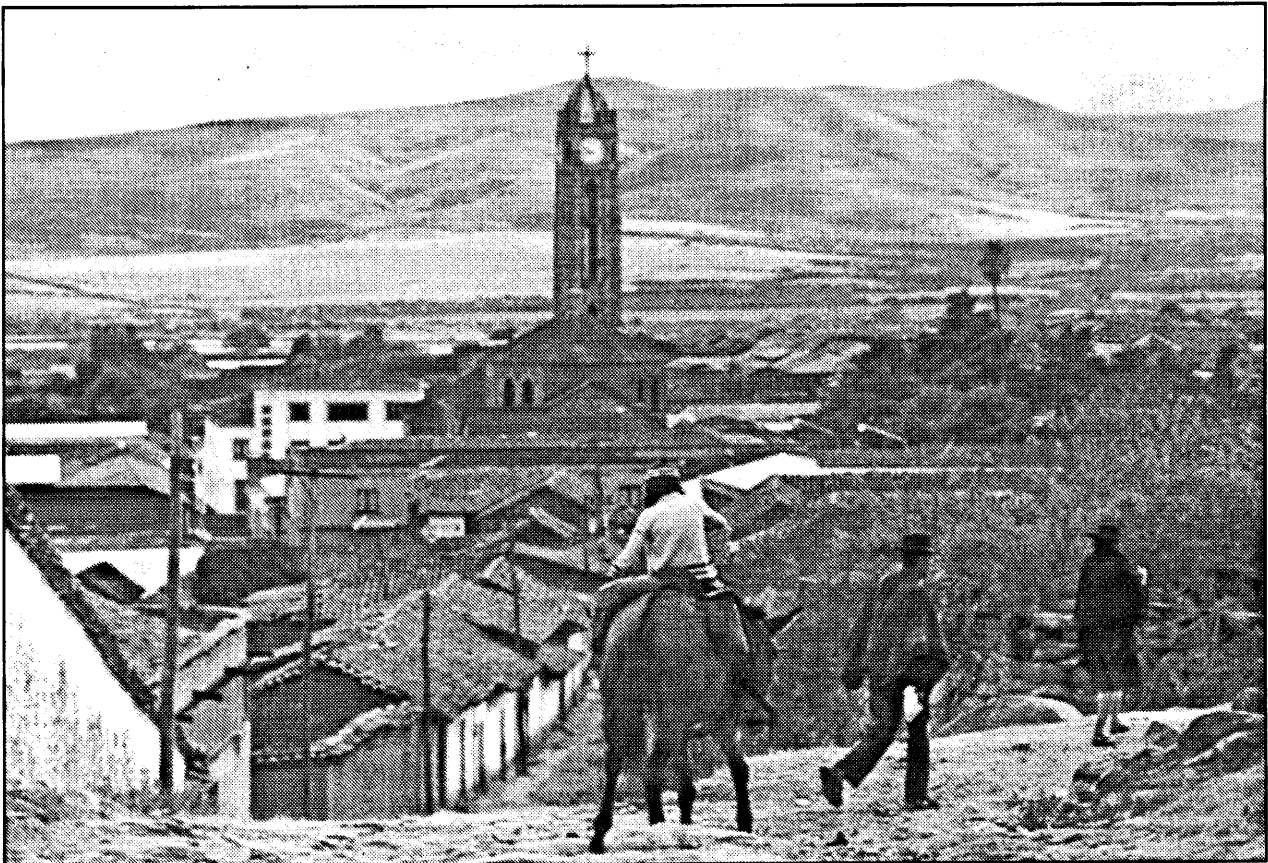
The miners' network has survived formidable challenges in the past, but the enemy they now face is one that cannot be beaten by force or persistence. While tin has declined in importance in Bolivia's economy, it is still possible to operate some mines profitably. The mines will survive, but the long-term survival of the miners' union is not a forgone conclusion. As long as it does hold on, their will likely be at least some broadcasting activity, but only a handful of the stations are currently active. The prognosis, unfortunately, is "get 'em while you can."

Still, there is hope that some of the miners' stations might survive, albeit not in their present form. Many of the stations operating as commercial ventures in Bolivia today were started and are still owned by various non-mining unions. Some of the miners' stations with profit potential might be able follow this route to survival, forfeiting—at least temporarily—their activist social agenda.

If General Banzer is indeed the behind-the-scenes president in Bolivia today, *all* Bolivian broadcasters would do well to watch their flanks. Banzer is no friend of the media. His military government in the 1970s was quite repressive, even by Bolivian standards:

"What radio stations were permitted to broadcast were directed largely by government officials. The transmitters of the Church were destroyed. Radio Pio XII, which was one of the few stations broadcasting news of the repression of miners throughout General Barrientos's presidency from 1964-1969, no longer could operate." [5]

This is the same gentleman who thought Pinochet had the ultimate solution to government, and proceeded to ban all political parties in Bolivia. One must also question motives when the far right and the far left join forces. Banzer and Jaimie Paz Zamora seem about as idealistically alike as Jesse Helms and Ted Kennedy. Hopefully a continuation of the economic recovery will prevent either man from unleashing his true nature.



LOGGING AND VERIFYING BOLIVIAN BROADCASTERS

Persistence is the key to successful Latin American DXing, and Bolivia is no exception. A number of stations can be logged easily, and a few are fairly good verifiers. But the rare catches still require a good opening, or finding a normally dominant station off the air, or both.

The Auroral Factor. The effect of disturbed geomagnetic conditions on Latin American DX is well-documented. One of the best examples of this effect can be observed by DXing low-powered Bolivian and Peruvian stations. Many of them operate with transmitter powers well under 500 watts, and (sometimes unintentionally) use frequencies well outside the standard broadcasting bands. Tuning across 5505.4 most evenings might yield a weak het, or more likely, nothing at all. But during auroral conditions, don't be surprised to find Radio Dos de Febrero on the frequency with surprisingly good signals.

Seasonality. North American DXers are accustomed to thinking about 'seasons' as they affect reception from Indonesia, the Indian Subcontinent, and the like, but enhanced seasonal propagation from our southern continental neighbor does not seem to be as well-known. David M. Clark in Newmarket, Ontario notes, "I have found October through about mid-November to be an optimum period for early evening [Andean] DXing." I have noted some exceptional early evening Bolivian openings from my Alabama QTH during the late spring and early summer months each of the last three years, corresponding to the time of year when Bolivian sunset occurs approximately two hours before my local sunset (refer to the propagation section of *Proceedings 1990* for more on this 'sweet spot' phenomenon). I usually note an obvious signal peak at receiver sunset, with steadily declining signals for the remainder of the evening and the weaker stations disappearing entirely.

I have not personally observed any period of significant enhancement that affects pre-sunrise reception of Bolivians in North America. But another factor that often determines whether a rare station can be heard is often in evidence in the mornings—the highly variable sign-on times of Latin American stations. About a month before the Bolivian presidential elections in 1989, I noted an obviously Andean station signing on anywhere from 0930-1000 UTC, weakly audible until it was covered by the sign-on of Radio Táchira, also 9030-1000v. The Bolivian station Radio Grigota was one possibility, listed here with a 1000 sign-on—that's certainly what I *wanted* it to be—but I never managed an ID, and after the elections, the early sign-ons ceased. Earlier this year, though, the ever-vigilant Kirk Allen in Ponca City, Oklahoma began hearing the Andean station again signing on before Táchira, and finally managed to ID it as Radio Grigota.

It is worth noting that evening and morning Bolivian DXing each net a whole different crop of stations. In the mornings, stations broadcasting to campesino audiences sign in the 0900-1000 UTC range with the folk music programs so popular in the countryside. Stations heard in the evenings are more likely to play contemporary music, romantic ballads, and the like.

One particularly challenging aspect of DXing Bolivia is that much of the programming for the campesinos will be in either the Quechua or Aymara language. Use of the Indian languages on the air seems more common in Bolivia than in any other South American nation, including Perú. While the average DXer can't hope to understand a great deal of either (or distinguish between them, for that matter), it is worthwhile to spend some time listening to Quechua broadcasts on HCJB to get a feel for how identifications and time checks might sound. Be aware that both Aymara and Quechua broadcasts will include some Spanish lexicon, which could be confusing.

Verifying Bolivian stations can be an exercise in frustration. The situation is not nearly as bad as that in Perú, where reports are routinely ignored in favor of more pressing concerns (like staying alive). But postal service in Bolivia—or rather, the lack of it—prevents many reports from ever reaching the stations. Mail service to La Paz is reliable, and Santa Cruz is quite 'connected' these days, but letters to jungle outposts or remote mining centers stand only a slight chance of reaching the addressee. Outside of La Paz, the best method is to use registered mail and use 'Correo Central' for any nonexistent street address. If anyone from the station decides to visit the post office, he might get your report. My own Bolivian verification rate over the last three years is about 50%—about four times my Peruvian rate. Remove the miners' stations, and the Bolivian rate soars—I have yet to get a single miners' station to verify, but they obviously have other concerns.

Return postage in the form of Bolivian mint stamps or U.S. \$1.00 bills is a must. U.S. currency is not quite as easy to exchange now as it was when the inflation rate was 24,000%, but there are still moneychangers in most population centers. For remote stations, mint Bolivian stamps (among the most expensive country available, currently about \$1.50 per unit) will save the prospective verification signer some trouble and perhaps improve the odds. As with most Latins, a post card, some photographs or a sticker or two will enhance the chances of getting a pennant along with a QSL. And please, call the Bolivian Indians *campesinos* in your reception reports—it is considered an insult to refer to them as *indios*.

THE FIRST FIVE...

While the face of the Bolivian radio dial is subject to rapid and remarkable change, a few stations are fairly consistent in terms of frequency, operating hours, and audibility. Logging these stations should provide the newcomer to Andean DXing with a foundation on which to build.

Radio Panamericana. This La Paz commercial station is probably the easiest of the lot to hear, subject to what international broadcaster is using 6105 kHz at the time. Panamericana is normally a bit high in frequency, around 6105.5, and is best heard at their morning sign-on (1000v). The station management is quite friendly to DXers, and verifies with an attractive multi-colored QSL card.

Radio Santa Cruz. This commercial station in the relatively new boom-town of Santa Cruz puts a good signal into North America in the pre-dawn hours on the low side of 6135 kHz, normally around 6134.8. It is also a good verifier [although the card is fairly primitive compared to that of Panamericana, the latter being the exception rather than the rule], and some DXers have received pennants as well.

La Cruz del Sur. This is a religious station (operated by Bolivian Baptists) that is fairly consistent on 4875 kHz during the predawn hours. Programming may be in Spanish, Indian languages, or even German, and an occasional English ID has been reported. Look for sign-on anywhere between 0900-1000, with interference from a Brazilian or two. The station seems to respond well to reception reports which include prepared QSL cards, which they sign and stamp; reports lacking such are likely to be answered with nothing more than a program schedule.

Radio Santa Ana. This commercial station, located in Santa Ana de Yacuma, has typical evening programming of Latin ballads and ads. It is no powerhouse, but falls into the "weak but clear" category most evenings on its out-of-band frequency of 4649 kHz. It is a useful propagation beacon for more difficult Bolivians, too. Unfortunately, the verification track record is not very good.

Radio San Miguel. Less reliable than the previously-cited offerings, Radio San Miguel nonetheless is often reported in North America with fairly good signals on 3310.3 kHz. The station is operated by the Catholic church from the town of Riberalta in the jungle lowland department of Bení. Look for sign-on anytime after 0900. The station verifies consistently, usually by letter.

BIBLIOGRAPHY

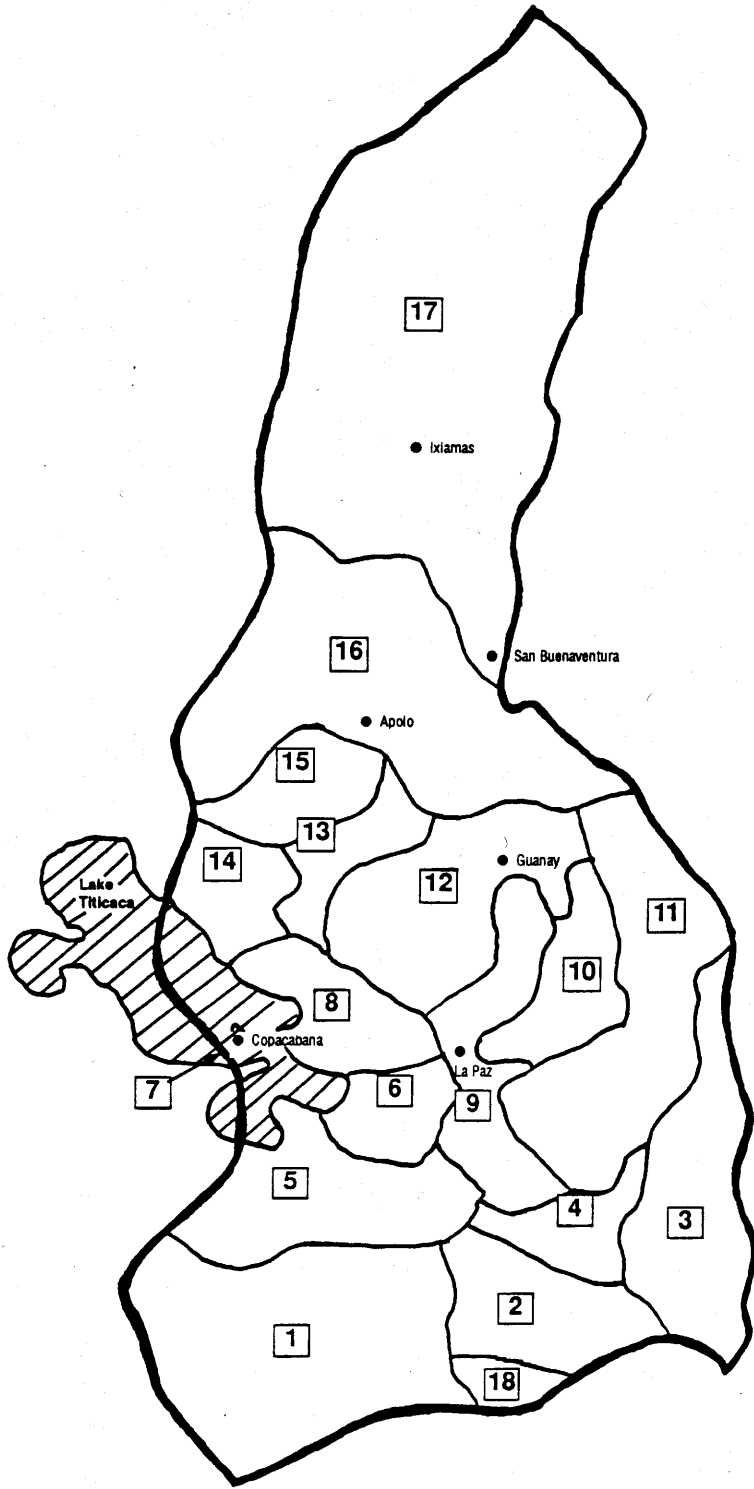
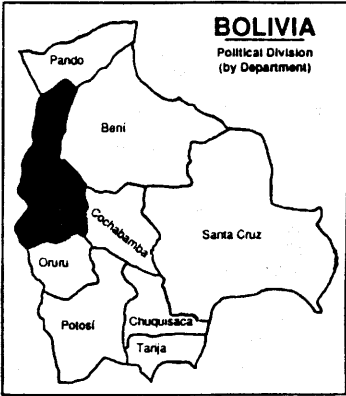
1. Anstee, Margaret Joan, *Bolivia: Gate Of The Sun*. New York, Paul S. Eriksson, Inc., 1970.
2. Gwyn, Robert J., "Rural Radio in Bolivia: A Case Study," *Journal of Communication*, Spring 1983, pp. 79-87.
3. Klein, Herbert S., *Bolivia. The Evolution of a Multi-Ethnic Society*. New York, Oxford University Press, 1982.
4. Malloy, James M., *Bolivia. The Uncompleted Revolution*. University of Pittsburgh Press, 1970.
5. Nash, June C., *We Eat the Mines and the Mines Eat Us: Dependency and Exploitation in Bolivian Tin Mines*. New York, Columbia University Press, 1979.
6. O'Connor, Alan, "The Miners' Radio Stations in Bolivia: A Culture of Resistance," *Journal of Communication*, Winter 1990, pp. 102-110.
7. Slaughter, Jane, "Tin Miners' Radio on the Ropes," *The Progressive*, Volume 53, No. 2, February, 1989, p.11.
8. Swaney, Deanna, *Bolivia. A Travel Survival Kit*. Victoria, Australia, Lonely Planet Publications, 1988.
9. Various correspondent reports in *The Economist*, 1988-1990. The quotation used herein is from the October 20, 1990 edition, pp. 48.

ACKNOWLEDGMENT

Many thanks to Don Moore, who provided valuable assistance in researching this article and located the cities and towns on the provincial maps, and to John Bryant, who provided the photographs from his library.

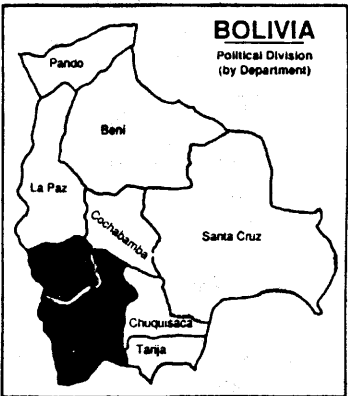
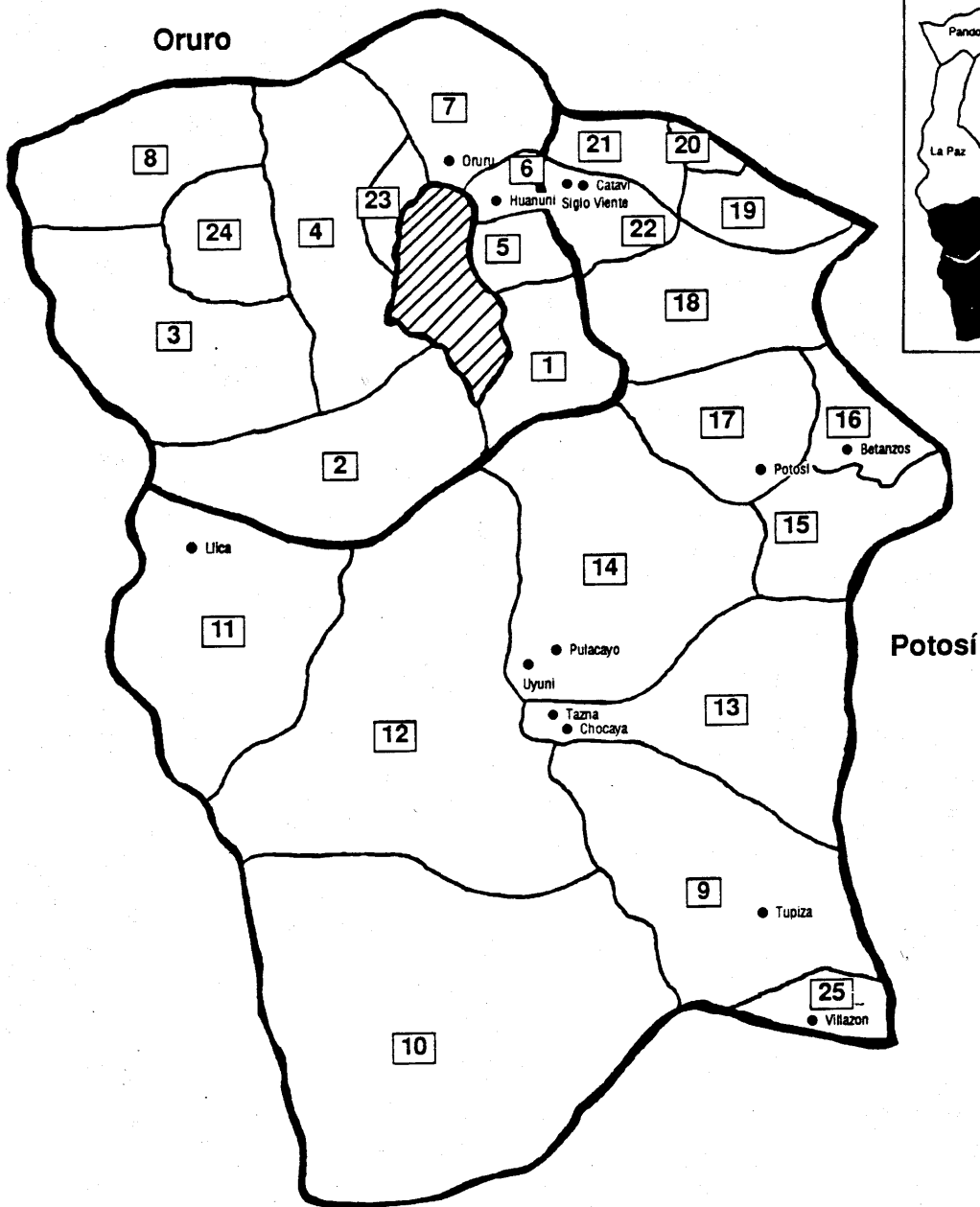


Pennant images from Station Pennants of the World by Barto



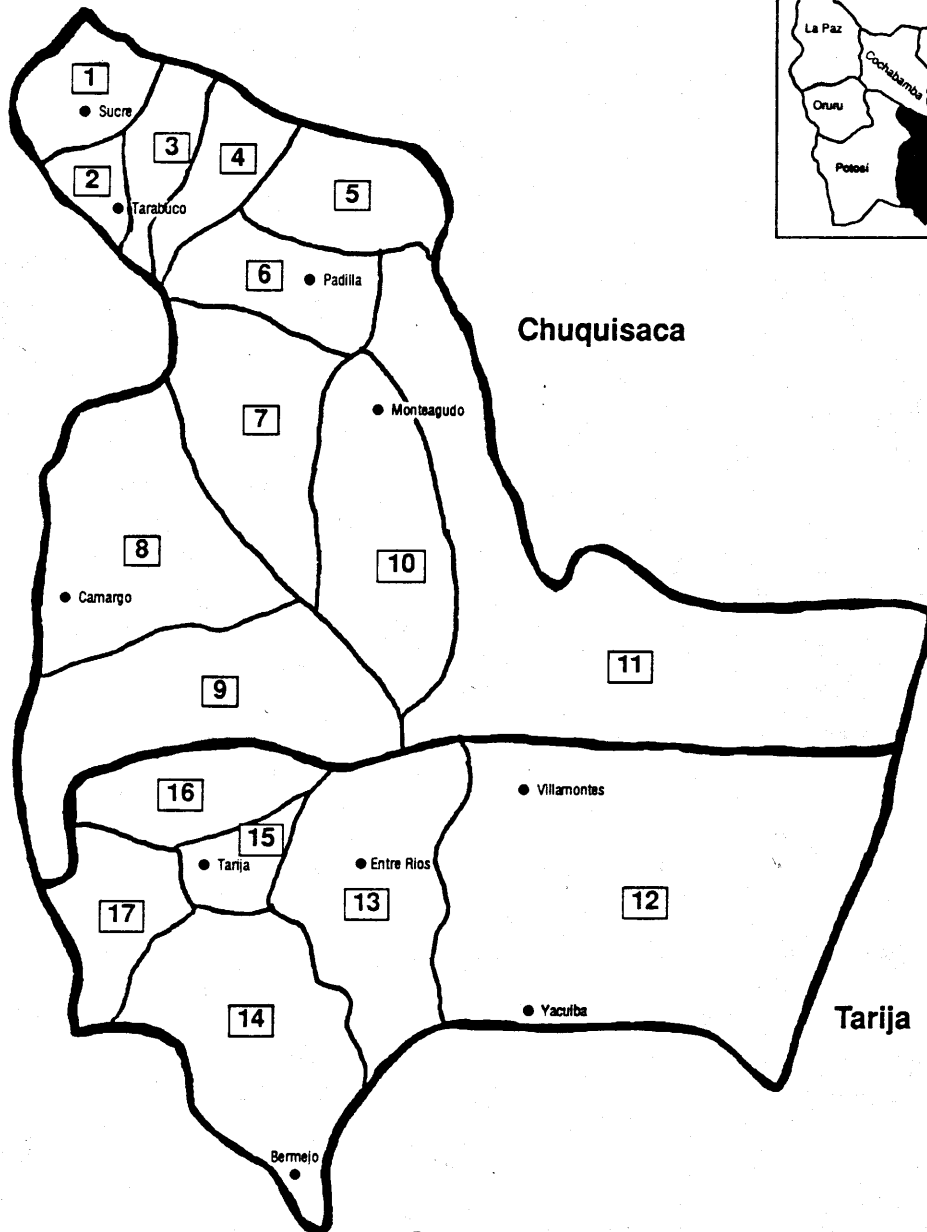
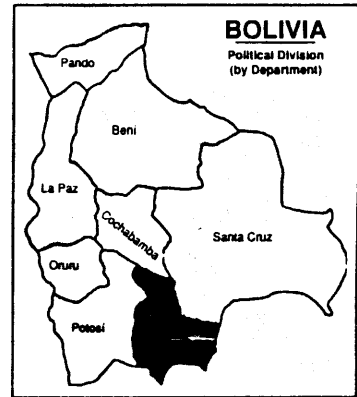
**Department of
La Paz**

- | | |
|---------------|-----------------|
| 1 Pacajes | 10 Nor Yungas |
| 2 Aroma | 11 Sud Yungas |
| 3 Inquisivi | 12 Larecaja |
| 4 Loaiza | 13 Muñecas |
| 5 Ingavi | 14 Camacho |
| 6 Los Andes | 15 Saavedra |
| 7 Manco Kapaj | 16 Franz Tamayo |
| 8 Omasuyos | 17 Iturralde |
| 9 Murillo | 18 G. Villaroel |



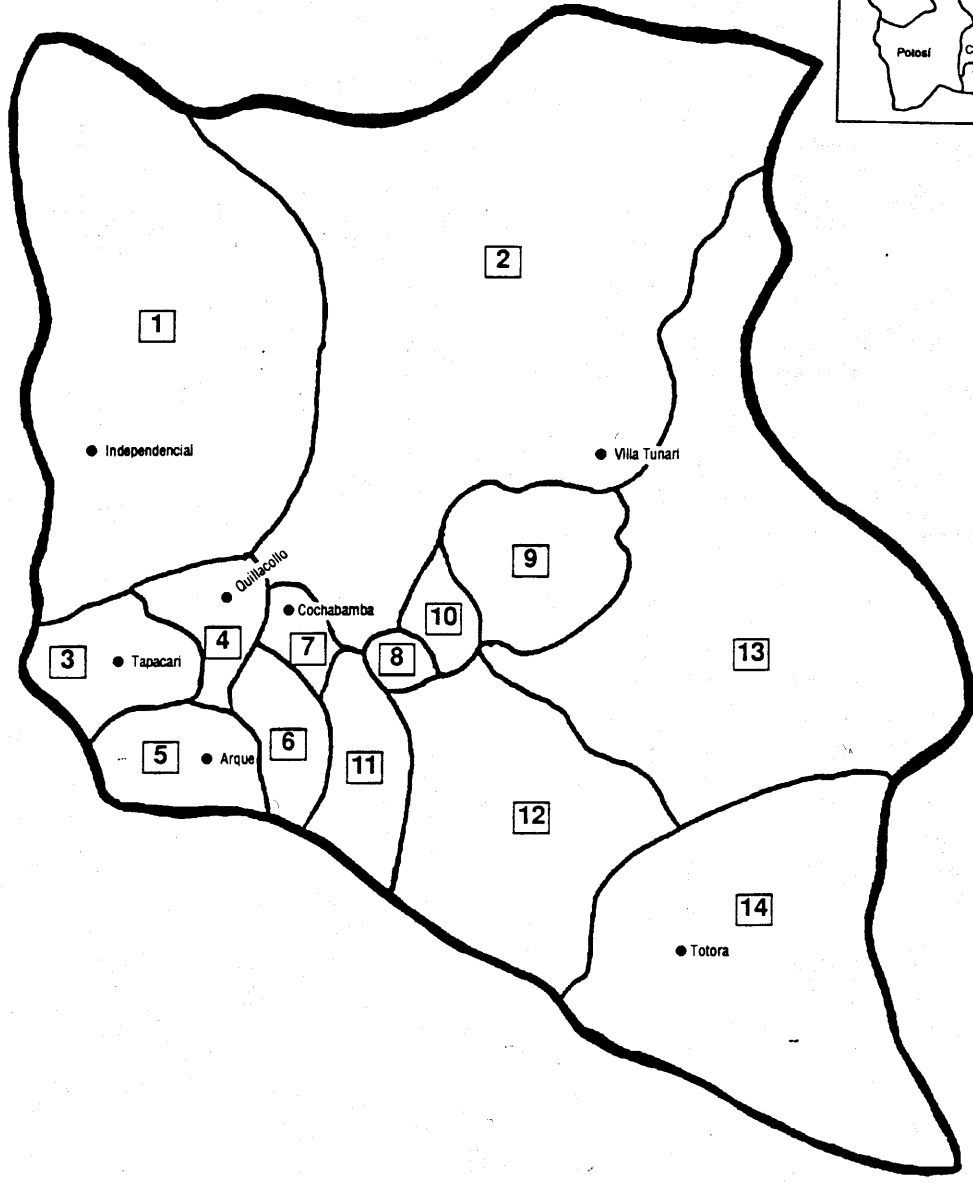
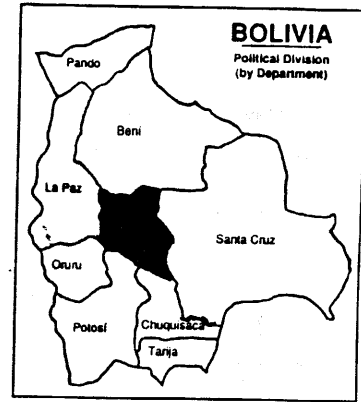
Departments of Oruro and Potosí

- | | |
|------------------|----------------------|
| 1 Abaroa | 15 Linares |
| 2 Cabrera | 16 Cornelio Saavedra |
| 3 Atahualpa | 17 Frías |
| 4 Carangas | 18 Chayanta |
| 5 Poopó | 19 Charcas |
| 6 Dalence | 20 General Bilbao |
| 7 Cercado | 21 Alonzo de Ibañez |
| 8 Sajama | 22 Bustillos |
| 9 Sud Chichas | 23 Saucari |
| 10 Sud Lipez | 24 Litoral |
| 11 Daniel Campos | 25 Modesto Omiste |
| 12 Nor Lipez | |
| 13 Nor Chicas | |
| 14 Quijarro | |



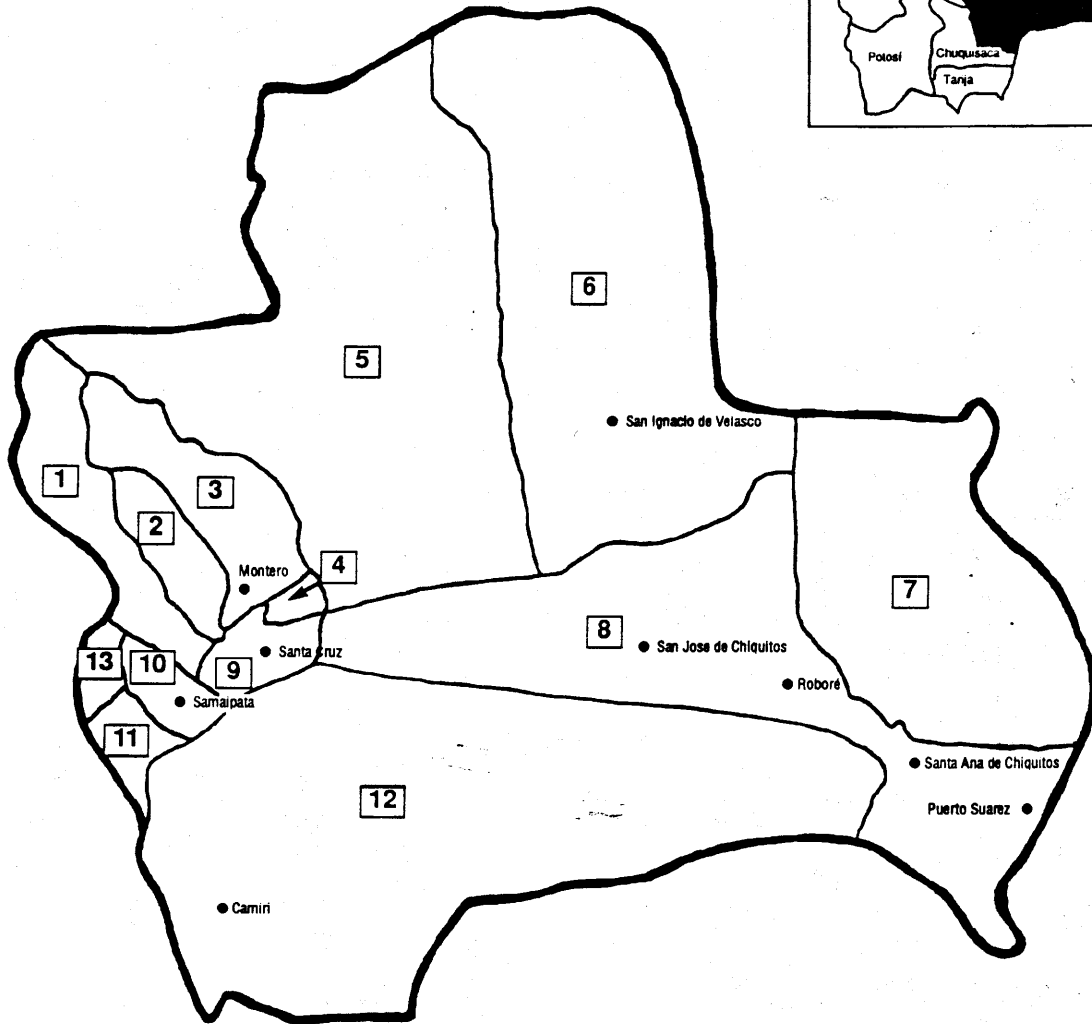
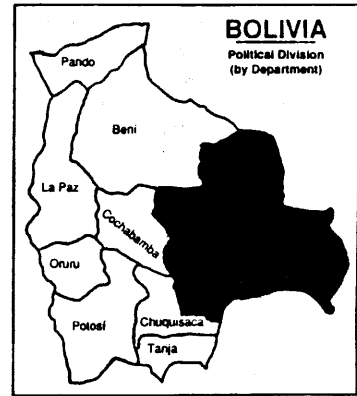
Departments of Chuquisaca and Tarija

- | | |
|-------------|---------------|
| 1 Oropeza | 10 Azero |
| 2 Siles | 11 Calvo |
| 3 Yamparáez | 12 Gran Chaco |
| 4 Zudañez | 13 O'Connor |
| 5 Boeto | 14 Arce |
| 6 Tomina | 15 Cercado |
| 7 Azurduy | 16 Mendez |
| 8 Nor Cinti | 17 Avilez |
| 9 Sud Cinti | |



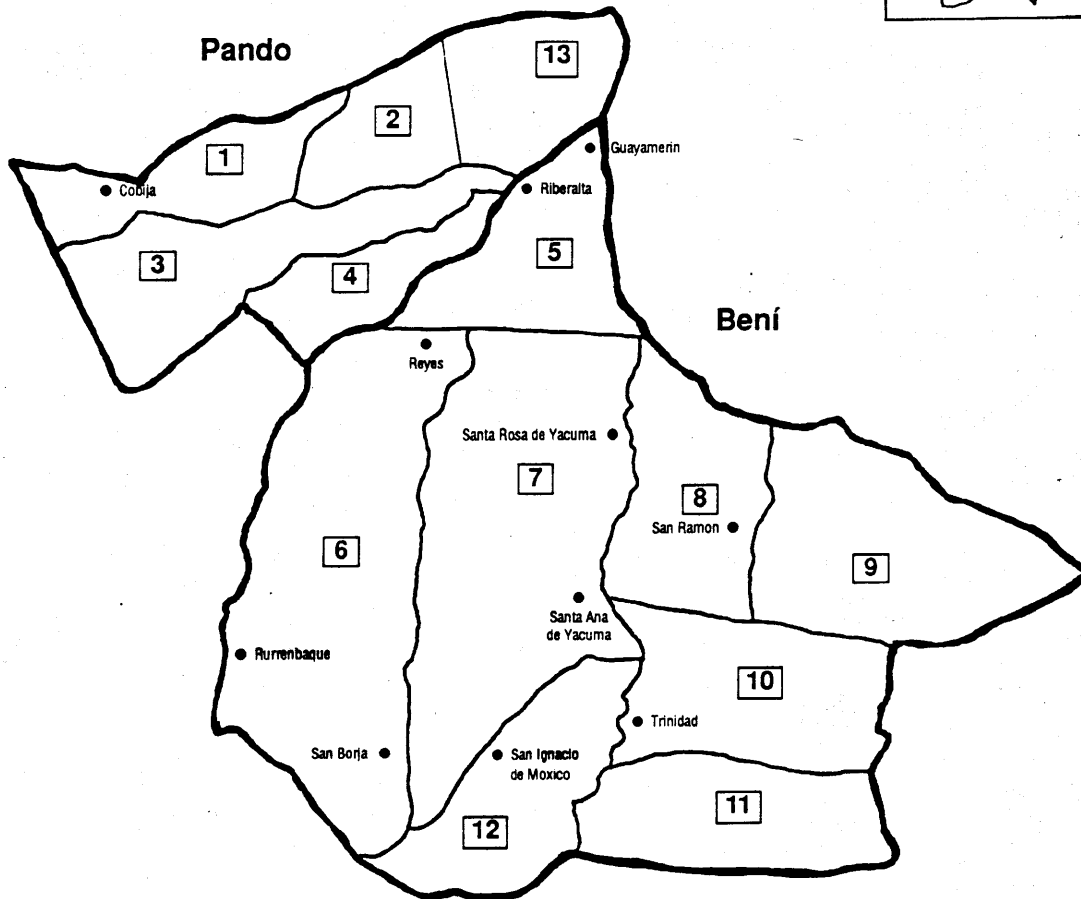
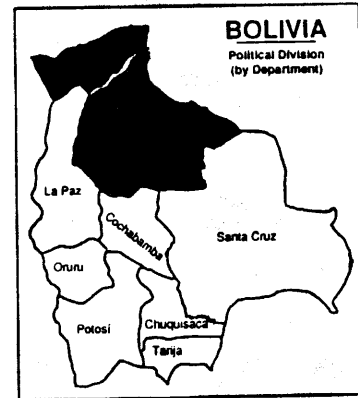
Department of Cochabamba

- | | |
|---------------|------------------|
| 1 Ayopaya | 8 Jordan (Cliza) |
| 2 Chapare | 9 Arani |
| 3 Tapacari | 10 Punata |
| 4 Quillacollo | 11 Arce |
| 5 Arque | 12 Mizque |
| 6 Capinota | 13 Carrasco |
| 7 Cercado | 14 Campero |



**Department of
Santa Cruz**

- | | |
|-------------------|----------------|
| 1 Ichilo | 7 Sandoval |
| 2 Gutierrez | 8 Chiquitos |
| 3 Santiesteban | 9 Ibañez |
| 4 Warnes | 10 Florida |
| 5 Nuflo de Chávez | 11 Vallegrande |
| 6 Velasco | 12 Charcas |
| | 13 Caballero |



Departments of Pando and Bení

- | | | | |
|---|----------------|----|----------------------|
| 1 | Nicolas Suarez | 7 | Yacuma |
| 2 | Abuna | 8 | Mamoré |
| 3 | Manuripi | 9 | Iténez |
| 4 | Madre de Dios | 10 | Cercado |
| 5 | Vaca Diez | 11 | Marban |
| 6 | Ballivián | 12 | Moxos |
| | | 13 | Gral. Federico Roman |