

# 廣東航道

GUANGDONG WATERWAY

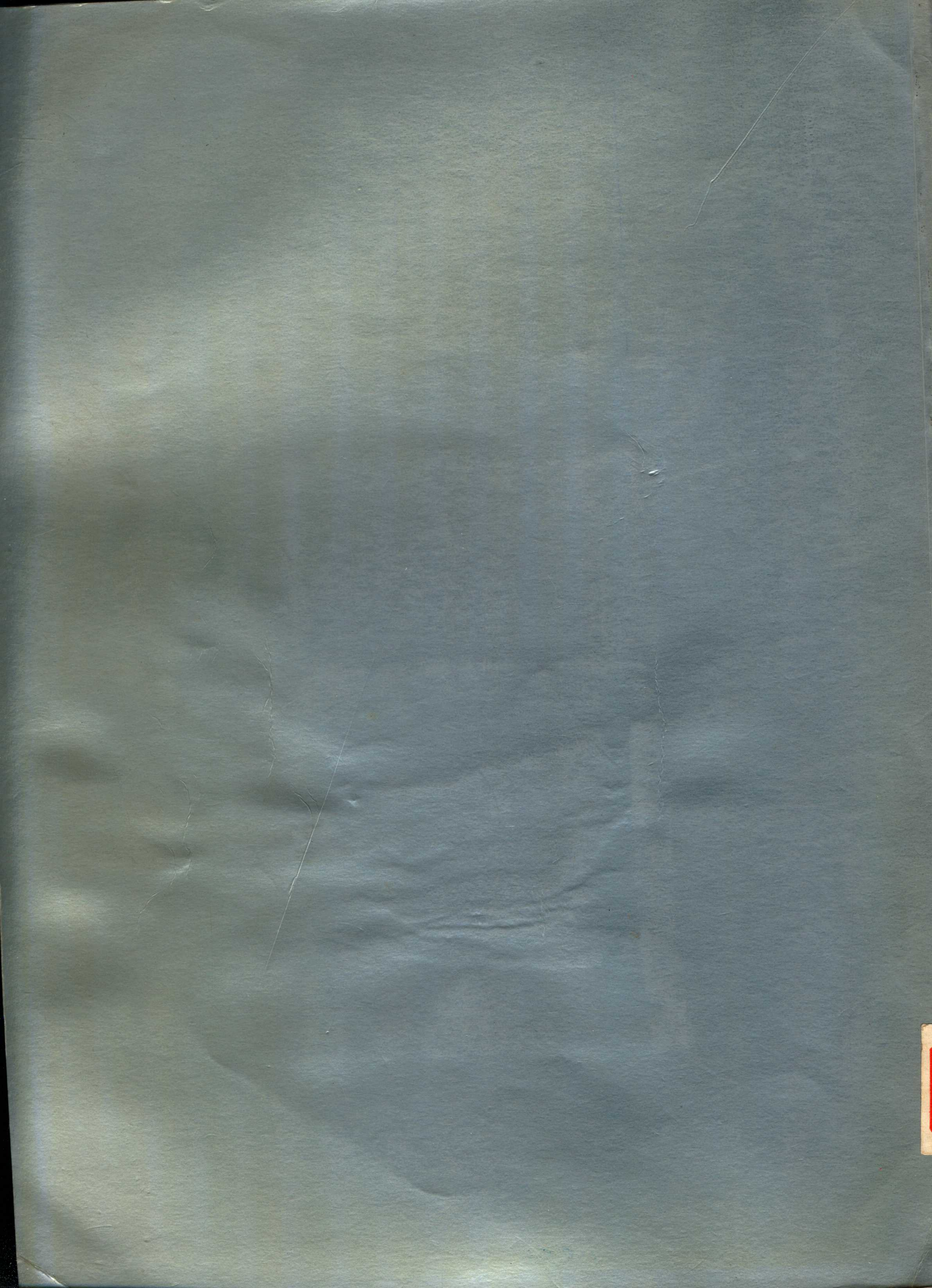


廣東省航道局

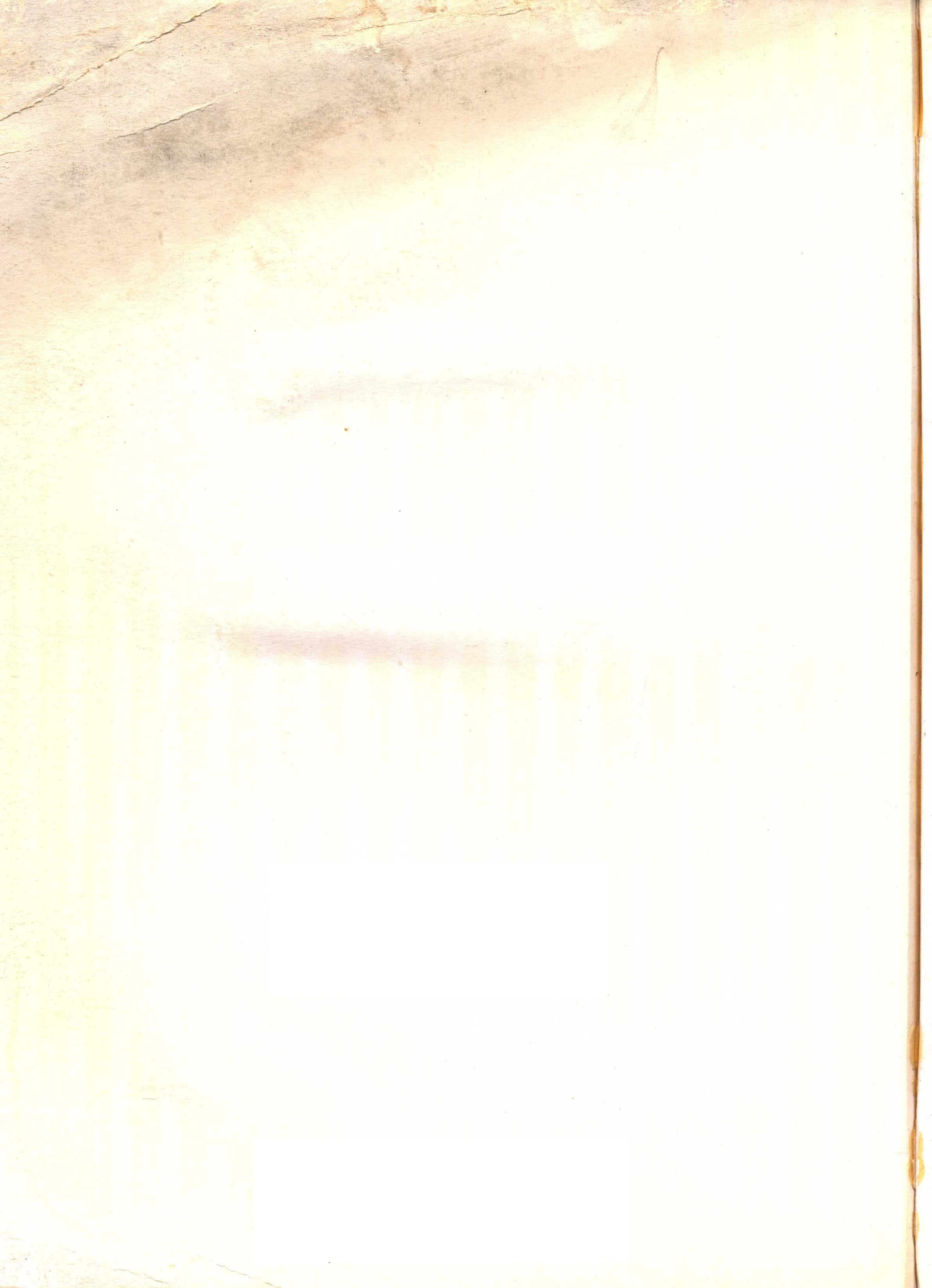
GUANGDONG PROVINCIAL WATERWAY BUREAU

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封面題字

廣東省省長 葉選平

Front Cover Inscription by Mr. Ye Xuanping, Governor of Guangdong Province



# 廣東航道

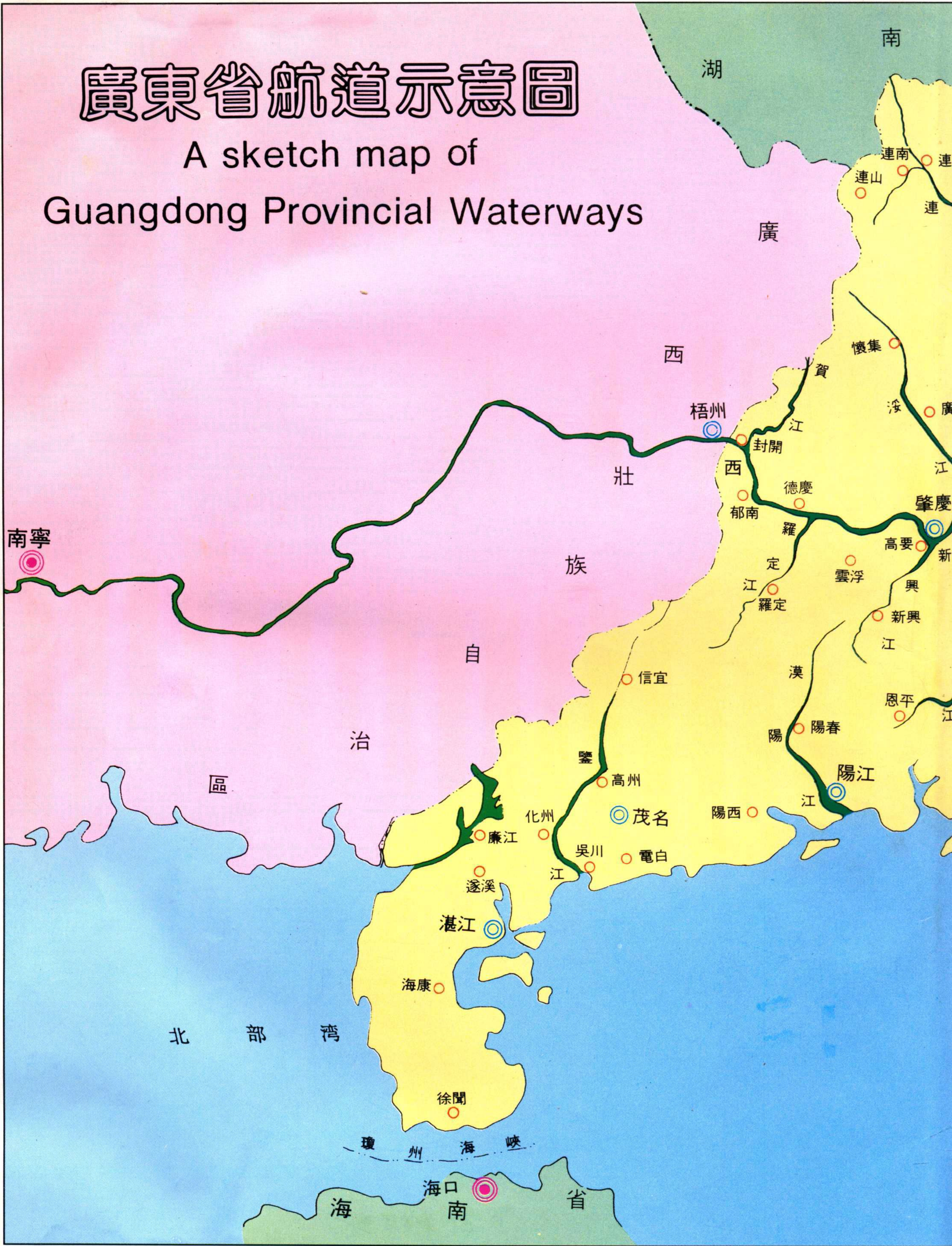
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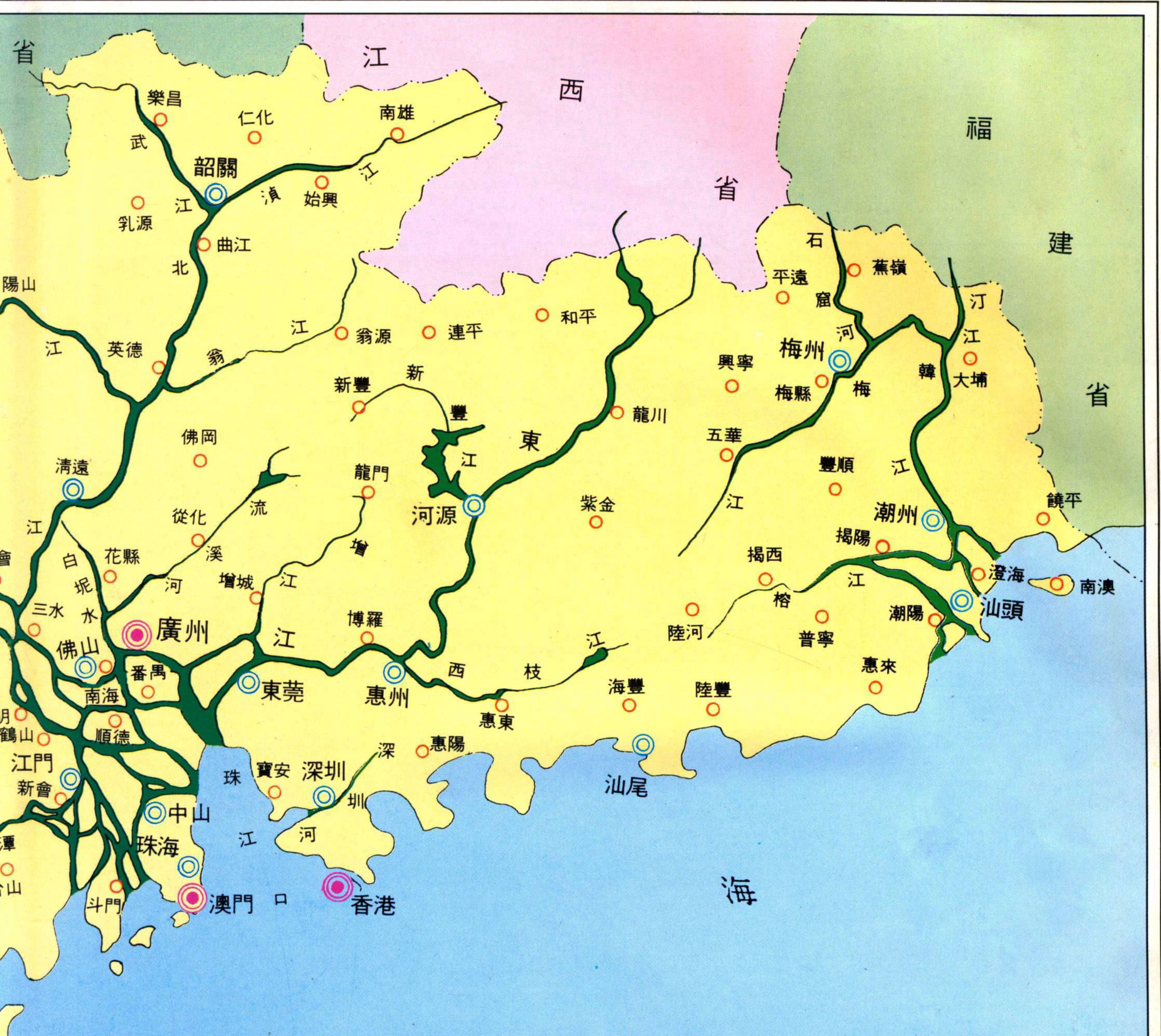


# 廣東省航道示意圖

A sketch map of  
Guangdong Provincial Waterways

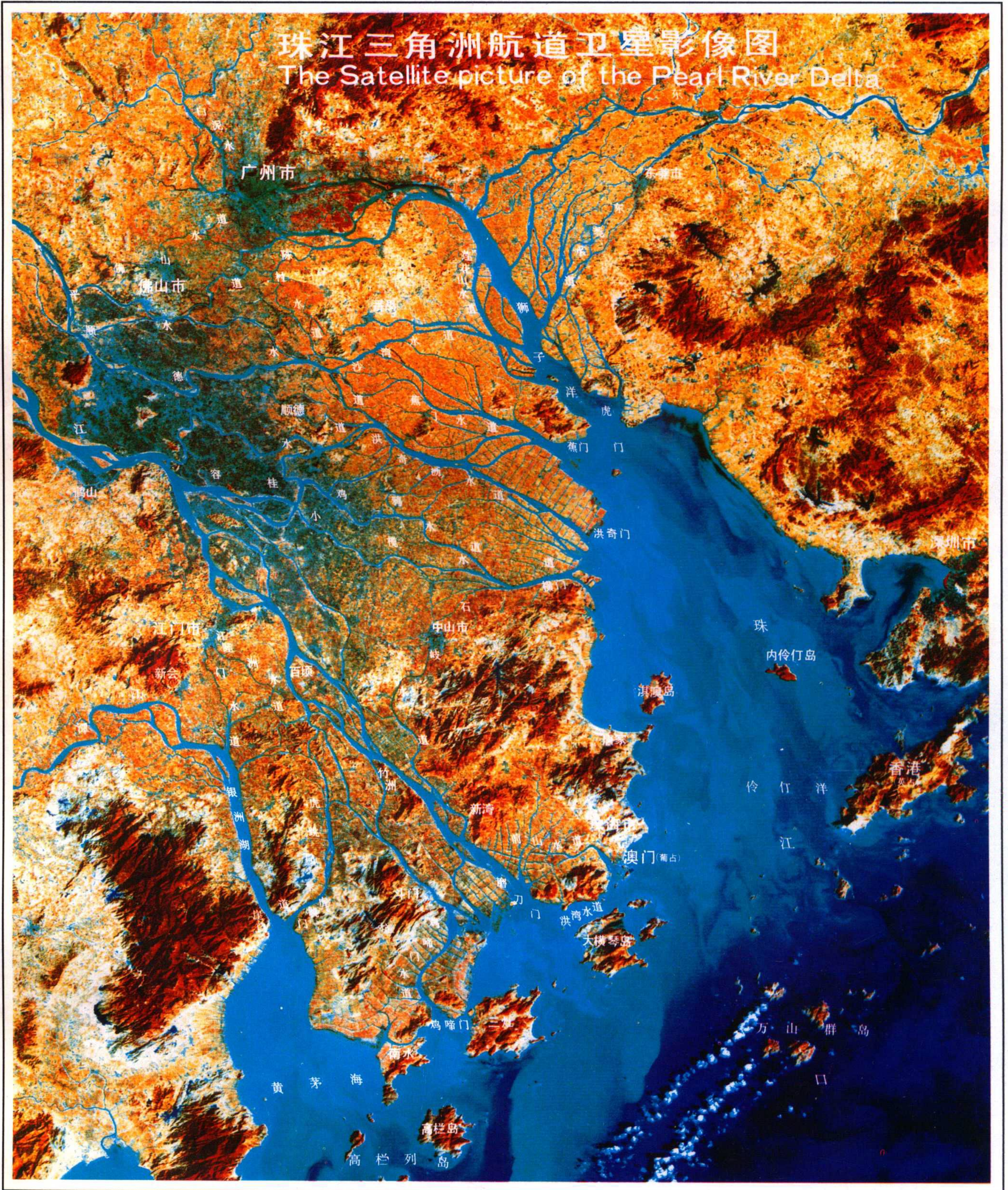






- 
 省、自治區人民政府駐地（香港、澳門同）  
 The capitals of province and autonomous region (including Hong Kong Macao)
- 
 市人民政府駐地  
 The municipal government seat
- 
 縣人民政府駐地  
 The county seat
- 
 主要通航河流  
 The main navigable streams
- 
 省 界  
 Provincial boundaries







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# 回顧與展望

廣東省航道局局長 麥志權

廣東省背倚五嶺，面臨南海，有珠江水系縱橫其間，屬於亞熱帶氣候，雨量充沛，境內河流縱橫交錯，海岸線漫長，港灣衆多，具有發展水運的良好自然條件。

但是，在解放前，舊政府根本不管航道，全省航道絕大部分處於自然狀態，船舶航行條件惡劣，水運事業十分落後。

解放後，在黨和政府的重視下，我省逐步建立和健全了統一管理全省航道的機構，各市、縣均設有航道管理網，現已發展成爲一支有數千職工、數百科技人員、數百艘船舶、能擔負起航道維護建設管理職責的航道隊伍。

建國40年來，我省先後對東平、陳村水道和西江、東江、北江、韓江等主干航道進行了全面整治，對連江和梅江等山區河流進行了全線渠化，從而大大改善了通航條件。特別是改革開放以後，通過對西江（廣東段）千噸級航道的建設，陳村水道的擴建和前山水道碍航閘壩復航工程的興建，將珠江三角洲密如蛛網的主干航道互相溝通，形成了四通八達的航道網絡，從而使水運事業更好地適應外向型經濟發展的需要。

在助航標誌建設方面，解放後，全省主干航道和沿海小港航道先後設置了等級航標，并不斷採用新技術、新材料，使助航標誌由竹木結構發展爲鋼筋混凝土和鋼結構；標燈由煤油燈發展爲集成電路燈；標燈自動開關由鋅鐵開閉器發展爲單晶硅片開閉器；發光電源由干電池、蓄電池發展爲太陽能電池；維護設備工具由小木伐發展爲機動船和快艇。近年還完成了



航標製式改革工作，經驗收全部符合交通部新訂的海河航標國家標準。

建國40年來，在航道維護管理方面也有了長足的進步。我省先後製定了主干航道的設計水位和維護尺度標準，建立了一套比較完善的航道維護管理製度。改革開放後，重新修訂和製訂了20多種規章制度，基本上實現了航道維護管理制度化、標準化、规范化、圖表化。特別是國務院頒布《中華人民共和國航道管理條例》和省政府頒發《廣東省航道管理辦法》以後，航道管理開始走上法治道路。隨着航道維護管理的改善和加強，全省主干航道的維護質量年年達到和超過規定標準。

建國40年的歷史證明：我省航道事業有了較大的發展，航道面貌發生了巨大變化。現全省有通航河流一萬多公里（近千條），其中主干航道三千多公里，航道標誌三千多座。但是由於原來航道基礎較差，航道工作還遠不能滿足水運事業和現代化建設發展的需要。爲此，我們設想到本世紀末把我省建成一個以廣州爲中心、以沿海和西江爲骨架、以珠江三角洲爲依托、江海直達、干支相通、四通八達的航道網。我們初步計劃將小欖、蓮沙容、虎跳門、石歧、江門、順德、東莞和北江下遊、東江下遊等珠江三角洲水道分別建成300、500、1000噸級航道；將崖門、虎跳門、磨刀門等出海航道建成3000~10000噸級航道。我們一定要認真落實上級已給予的和將給予的航道扶持政策，爭取各方面對航道部門的幫助、支持，充分調動全省航道干部、職工的積極性和創造性，使我省航道事業能盡快超前於國民經濟的發展，真正成爲現代化建設的“先行官”。

借出版畫冊《廣東航道》之機會，我謹代表廣東省航道局向爲發展我省航道事業作出貢獻的全省航道職工致以崇高的敬意，并向所有關心、支持、幫助我省航道事業的同志們、朋友們致以誠摯的謝意！



## Retrospect and Prospect

By Mai Zhiquan, director of Guangdong Provincial Waterway Bureau

Learning on the Five Ridges, facing the South China Sea, interlaced with the Pearl River system and having a subtropical climate, crisscross rivers, long coastlines as well as many harbours, Guangdong Province provides a favourable natural condition for the development of water transport.

However, before liberation the old government simply paid no attention to the waterways so that most of the provincial waterways were in natural situation, the navigation condition of boats and ships was very poor and the Guangdong provincial water transport was backward in the extreme.

After liberation, under the great attention of the party and Government, Guangdong Province has progressively set up and perfected the united structures administrating provincial waterways and every city (or county) has set up the administration network of waterways. Now a contingent for waterway has been developed which has thousands staff, hundreds technical personnel, hundreds boats and ships, and can take charge of the preservation, construction and administration of waterways.

During 40 years since the founding of the People's Republic of China, Guangdong Province has, one after another, overall improved the main waterways of the Dongping Waterway, the Chencun Waterway, the West River, the East River, the North River and the Hanjiang River, and so on, and has, all along the line, canalized the mountainous rivers such as the Lianjiang River and the Meijiang River, etc, so their navigation condition has been improved very much. Particularly, since the reform and opening to outside world, a waterways network radiating in all directions has been formed by constructing the West River (the section in Guangdong) as channel navigable for ships of 1000 tons, expanding the Chencun Waterway and carrying out the re-opening to navigation engineering of the lock dam obstructing navigation on the Qianshan Channel to make the main channels, which interlace within the Pearl River Delta, link up with each other. As a result, it makes the water transport well suit the need of the development of on-going-export-oriented economy.

In navigation marks construction, after liberation different classes navigation marks were, early or late, set up on provincial main channels and small coastal harbours channels. New technology and new material were continually adopted to make the aids to navigation develop from bamboo-wood structure to reinforcement concrete and steel structure, aid lamps from kerosene lamps to integrated circuit lamps, the auto-switches of aid lamps from zinc-iron switches to single crystal silicon layer switches, the electric source of beacon from dry batteries and storage batteries to solar batteries, the tools for preserving equipment from rafts to motor ships and speed boats. Of late years the reform of the method manufacturing navigation marks was also finished and all navigation marks were verified to conform to the national standard which was lately worked out about sea and river navigation marks by Ministry of Communication.

During 40 years since the founding of new China considerable progress has been made in the preservation and administration of channels. Guangdong Province has worked out the design stages and preservation dimension standard of main channels one after another and has set up a set of perfect systems of channels preservation and administration. After the reform and opening to the outside world over 20 kinds of rules and regulations have been newly formulated or amended and the channel preservation and administration has elementally realized systematism, standardization, normalization and diagrammatization. Particularly after the publication of "The Channels Administration Rules of the People's Republic of China" by State Council and "The Channels Administration Measures of Guangdong Province" by the Guangdong Provincial Government, the channels administration began to step on the road ruled by law. As the improvement and strengthening of channel preservation and administration, the preservation quality of main channels in the whole province reaches or exceeds the stipulated standard every year.

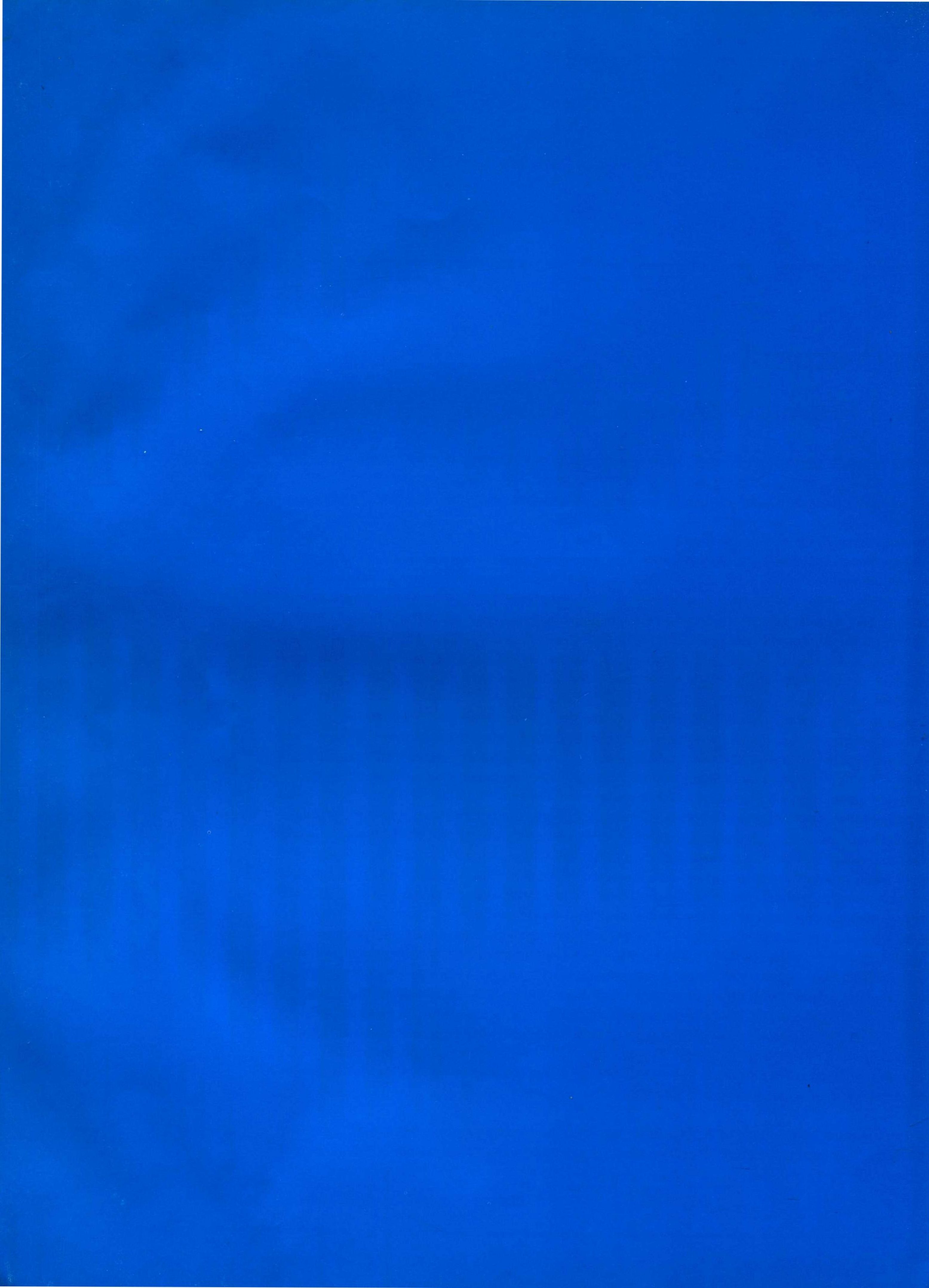
The history of 40 years after the founding of new China certifies Guangdong provincial waterway undertaking has gained greater development and the waterway's look has happened an enormous change. Now there is over 10,000 km navigation stream (near 1,000 rivers) in the whole province in which there are over 3,000 km main channel and more than 3,000 navigation marks. But because of the poorer original waterways bases the waterways work can not far suit the need of water transport development and modernization construction. So we imagine that in the end of this century our province will be built as a river-sea through, main stream-tributary unimpeded and radiating in all directions waterways network which takes Guangzhou as its centre, the coast and the West River as its framework and the Pearl River Delta as its support. We tentatively plan to respectively build the Pearl River Delta waterways such as Xiaolan, Liansharong, Hutiaomen, Shiqi, Jiangmen, Shunde, Dongguan, the lower reaches of the North River and the East River, as channels navigable for ships of 300,500 and 1000 tons, and build the estuary channels such as Yamen, Hutiaomen and Modaomen as channels navigable for ships of 3,000-10,000 tons. We certainly want to seriously implement the supporting policy the upper organs have given or will give to waterways, strive for every field's help and support to waterway departments and fully mobilize the activeness and creativeness of the whole province's cadres and workers in waterway departments so as to make Guangdong provincial waterway undertaking be able to go ahead of the development of national economy as fast as possible and really become the fore runner of the modernization construction.

Here I wish to take the opportunity of publishing "Guangdong's Channel Album of Pictures" to extend, on behalf of Guangdong Provincial Waterway Bureau, our noble regards to all Guangdong Provincial staff in the waterway departments who have made contributions to the development of Guangdong Provincial waterway undertaking and our sincere thanks to those comrades and friends who helped, supported and shown concern about the development of Guangdong Provincial waterway undertaking.













航道治理與開發  
Improvement and Development of Waterway



## (1) 珠江三角洲航道治理

珠江三角洲包括西、北、東江三角洲和流溪河、潭江、增江、深圳河等中小河流，以及香港、澳門等地，流域面積2·68萬平方公里。三角洲內河道縱橫，密如蛛網，1·13萬平方公里的網河區通航里程多達5200公里，佔全省通航里程的一半多。流域內大部分的貨運由水運完成，是個一日不能廢舟楫的地方。西、北、東三江來水在這裡融匯貫通，成放射狀汊道河系，經虎門等八大口門注入南海。珠江“三河通滙、八口分流”的水系特徵，在全世界的河流中實為罕見。它造成了大片肥沃富饒的網河平原，也給下游航道的治理開發帶來了許多復雜的因素。

建國後，我省一直重視珠江三角洲航道的治理與開發，重點對東平、陳村、前山三條水道進行了治理。

東平水道是廣州入西江的一條理想的經濟航道。由廣州經東平水道入西江比經蓮沙容水道入西江縮短航程110公里。廣州至南寧千噸級航道選線就定為由廣州東平水道入西江至南寧。

解放前的東平水道航道條件差，紫洞以下低潮水深僅0·3米。建國後對東平水道進行了三次大規模的治理。五十年代末以疏浚為主結合輕型整治建築物進行首期治理，共挖泥140多萬方，建單排編籬丁順壩800多座，第二次是1970年在紫洞以下進行堵河抽水人工挖泥。經過兩次治理，航道維護尺度大大提高。最近一次治理是近年的西江（含東平水道）的航道建設。

為適應國民經濟發展的需要，1981年國務院批准同意將西江南寧至廣州847公里航道建成能通航一頂二艘千噸級船隊的國家三級航道。

西江航道建設中的東平水道整治工程始於1985年，至今已完成了八成的工程量，取得了顯著的效果。在主要的線段上共修築了丁壩、順壩、鎖壩和護岸等導治建築物260多座（處），總長2·8萬多米，石方總量達



40多萬立方，共挖泥70多萬方，還炸除了全線碍航礁石2.4萬立方。先後將大刀灣、白蛇傳等六處彎曲半徑過小的彎道裁彎切嘴。經過治理已基本上達到了設計的千噸級航道標準，形成了珠江水系主通道。1988年11月，中國水利學會港口航道專業委員會等單位主持召開的西江航道廣東段整治工程技術討論會認為，東平水道整治的成效，是長河段系統整治的成功範例。

陳村水道是廣州通往中山、江門和珠海等市的重要經濟航道。解放前低潮水深僅0.1米，不能通航。五十年代初期經過兩期疏浚擴寬後航深、航寬和曲度半徑大大增加，相應船舶航行密度也迅速增加。但由於航寬不足，曲度半徑小，經常發生海事。為適應水運發展，確保船舶航行安全，1984年開始至今開展了陳村水道航道擴建工程，將原來的航道擴寬，裁切彎道八處，使曲度半徑增加，達到四級航道標準。現在，500噸級船舶可暢通無阻。

前山水道是兩廣通往澳門的唯一內河航道，1959年大聯圍後因石角嘴船閘不配套等原因，航道斷航。1984年國家投資開展復航工程，完成了石角嘴船閘配套工程，並新建了聯石灣船閘。前山水道整治後可達到四級航道標準，恢復其外貿水上通道的功能。

東莞水道是東江三角洲的一條重要航道，是東莞市水上運輸大動脈。為適應當地經濟發展，尤其是“大進大出”的需要，航道部門於1986年與地方政府集資開展了第一期工程——大王洲炸礁工程，局部改善了通航條件。目前在當地政府的支持下，正在全面進行東莞水道治理開發的前期工作。

隨着我國沿海經濟戰略的實施，治理開發口門航道，實現江海直達運輸已成為我省今後航道建設的主要任務之一。現已着手進行崖門、虎跳門、磨刀門、橫門等出海口門治理開發的前期工作。