Editor’s Thoughts

Wow, what a difference a week makes. The OPS BOD met in Dallas, TX the weekend of February 5 – 6th with beautiful sunny skies and temps in the 70’s. EXACTLY one week later Dallas was setting TWO weather records, the most snowfall in a 24 hour period and the most snowfall ever in Dallas, 16” of snow. Paula, what was that about the budget item I submitted being approved “when what freezes over”?????

I hope everyone is or has already made plans to attend the Rocky Mountain Mid Year OPS Educational Program. I know the BOE has a tremendous lineup of speakers from the local and international ophthalmic community set for both Friday and Saturday. I hope you can make both days, even if you can only make one day of the program it will be well worth the trip. For those of you attending, there is information on the Denver Airport starting on page 12.

In this magnificent issue we are using new software that now makes the OPSnews more like a booklet so you can turn the pages as you read. I trust you will enjoy reading the OPSnews with the new format; let me know how you like the new page turning software.

The OPS Elections are almost here, check out the dedicated people who’s noetic interested in serving the OPS will guide the society for the next four years. Elections will be handled and little different this year so read on page 7 for the new instructions.

I look forward to seeing everyone in Denver for the mid year program where you will meet the most gregarious of OPS people.

Until next time,

Bill
Spring is fast approaching and as we reach the end of this first quarter of the year, I find I am inclined to think like the Walrus in Lewis Carroll’s *Through the Looking Glass*. “The time has come to talk of many things………” - mostly the great strides the OPS is taking in moving towards more electronic options and solutions to benefit the Society.

As promised, our three Boards were very busy in February and March, conducting meetings and fine tuning programs. Several exciting new projects are underway, and I am delighted to share with you what will be coming in the next few months.

I am very happy to report that the total commitment of all OPS Boards to conduct Society business in the most fiscally responsible manner possible paid off, and we ended 2009 in better financial shape than in the beginning. I can’t thank the Board members enough for their dedication to conducting OPS programs economically without sacrificing quality. Way to go, BOD, BOC, and BOE!

You must have noticed it by now - check out our new newsletter software! Editor Bill Anderson exercised due diligence in his investigations and has found this slick new software that brings a wonderfully polished look to our newsletter (almost like holding a hardcopy, isn’t it?) Not only does it offer new opportunities for redesigning this particular electronic communication, it will be a valuable tool for other OPS functions.

One application of the new software will be in keeping with our embrace of electronic communication to conduct Society business. This year’s elections will be a hybrid of old tradition and new approach! To streamline the election process and save money, this software will be used to post the candidate statements for your review on our website. Then following the usual procedure, our Executive Director will be sending the ballot and voting instructions via postal service, and the voting process will be carried out using the traditional double envelope procedure. I’m sure you can appreciate the cost savings in posting the candidate statements electronically. More information regarding voting procedural changes will be sent out on the member email list in the next few weeks.

Always at the forefront in utilizing electronic tools, the hardworking BOC spent an entire day of their business meeting in March dedicated to updating, streamlining and trouble shooting all the online information and processes that are essential to our certification programs. Check out the OPS website for updated links and information.

This leads me to news of an exciting new partnership the OPS are joining which will have a positive impact on several aspects of our Society. A new online education and training resource will be launched in April that is the collaboration of five ophthalmic personnel professional organizations: JCAHPO, ASORN, ATPO, CSOMP, and OPS. There has long been a need for online CECs to support recertification and education in new technologies. The BOE has worked on online programs in the past, but we have never had the financial and technical resources needed to bring such programs to reality. JCAHPO has built a website that can provide the structure and services needed to support online education, and by collaborating with other professional organizations we are bringing a variety of high quality educational opportunities to the whole ophthalmic technical personnel community. The site is called ACTIONed, and you will receive more information about this resource in the next few weeks. Partnership in this educational endeavor allows the OPS to continue as the “Eye Imaging Experts” by providing excellent online modules on many imaging topics. While ACTIONed online modules will not replace the educational merits of in-person courses and lectures as offered at our educational programs, the value of online opportunities for recertification and for those with limited access to educational programs cannot be denied. Check the newsletter and member list emails for more information from the BOE about this resource as it develops and evolves.

As we continue to evolve and keep pace with changing technology, electronic communication – email, and our OPS website - have become our primary venues for supplying our members with information about our Society. If you have not yet supplied Barbara McCalley with an email address that can be used to keep you as current as possible about OPS news, I hope you will do so soon! Watch the newsletter and member list emails for more information from the BOE about all things OPS – upcoming educational programs, online education, certification activities, and our 2010 elections. We don’t want you to miss out on anything!

All the Best,

Paula
A Future Ophthalmic Imager?

On March 1, 2010, Johnny Justice’s granddaughter, Jessi, gave birth to Bella, his great granddaughter on Johnny’s 71st birthday.

What are the odds? Congratulations to Johnny and Carol Justice, Jessi and Colby Kennon and welcome aboard, Bella.
The OPS Chicago Chapter and SOMAC, (Society of Ophthalmic Medical Assistants in Chicago) have held 2 joint courses so far this year.

Cheryl Andrews at Mercy Hospital and Medical Center in Chicago hosted the first course on March 23, 2010. Dr. James L. Green, Chairman of the Department of Ophthalmology presented Diabetic Retinopathy. Dr. Green covered the ocular and systemic manifestations of the disease, as well as patient management, and current treatment options.

The next course, Flashes and Floaters, was held on April 19, 2010, at Adventist Bolingbrook Hospital, and was presented by Dr. Richard D. Zak. Dr. Zak discussed the significance of flashes and floaters as they relate to problems in the retina and vitreous, such as posterior vitreous separation (PVS), pathologic vitreo-retinal adhesions, lattice degeneration, retinal tears and retinal detachment. Treatment options, including laser, cryopexy, pneumatic retinopexy, scleral buckle, and vitrectomy were also covered. Gloria Anderson was our liaison for this course.

Our thanks to Cheryl Andrews, manager of the Mercy Eye Center, Dr. James L. Green, Gloria Anderson and Dr. Richard D. Zak for their support of our educational programs, and to Diane Frohlichstein, founder of SOMAC for coordinating these courses, and obtaining the CE credits.

OUTSTANDING 2009 RECERTIFICATION

The Board of Certification - Recertification Section would like to recognize and congratulate the following individuals for an outstanding 2009 recertification effort. These individuals have shown a deep commitment to their continued education and have submitted over 30 CEC hours for their recertification documentation.

The BOC is proud of all the CRAs who work to maintain their certification and to those who have recertified at twice the number of CECs required; OUTSTANDING!

Peter Hay, CRA, FOPS
Chairman, Recertification Section, BOC

William Anderson, FOPS, CRA
Margarita B. Azamar, CRA
Christopher Barry, FOPS, CRA
Michael C. Bono, CRA
Richard T Cornwell, CRA, OCT-C
Robert E. Curtin II, FOPS, CRA
Rhonda S. Curtis, FOPS, CRA
John M. Gerty, Jr., CRA
Lisa G. Griffin, CRA
Ditte J. Hess, FOPS, CRA
Melissa L. Johnson, CRA
Thomas P. Krebs, CRA
Donald E. Kuitula, CRA, OCT-C
Kirsten Locke, CRA
Anthony P. Medina, CRA
Sarah Moyer, CRA, OCT-C
James D. Strong, CRA, OCT-C

Alan Frohlichstein, BFA, BS, CRA, FOPS
President, Chicago Chapter
OPS Elections Are Evolving

The 2010 OPS elections will incorporate three Es: Efficiency, Economy and Electronic Communication!

This new electronic publishing software that is used to present our newsletter will be incorporated into our election process. Candidate statements will be available for your review on the OPS website, and the balloting and voting by current OPS members will be conducted in the traditional manner via U.S. mail service.

This blend of electronic communication with surface mail represents significant savings in printing and postage costs and will ultimately pave the way to a more efficient process as we eventually move to all electronic elections.

Watch your email and surface mail for specific instructions for the upcoming 2010 elections. Candidate statements will be placed on the OPS website in May, and the ballots will be mailed after the May 31st deadline for membership renewal.

Use your “voice” in supporting our Society – cast your vote in the OPS elections!

Board of Directors - Candidates are:

President - Paula F. Morris, CRA, FOPS
Vice-President - Robert W. Cavicchi, CRA, FOPS
Treasurer - William M. Anderson, CRA, FOPS
Secretary - Timothy J. Bennett, CRA, FOPS, OCT-C

Directors at Large: Candidates are

Denice A. Barsness, CRA, COMT, FOPS, ROUB
Robert E. Curtin, CRA, FOPS
Ditte J. Hess, CRA, FOPS
Jay A. Rostvold, FOPS

Board of Certification: Candidates are:

Rich Cornwell, CRA, OCT-C, COA, ROUB
Ray Gardner, CRA, OCT-C, COA
Marcela Hickey, CRA
Robert Shutt, CRA, OCT-C
Alexis Smith, CRA, OCT-C
Alicia Zetina, CRA

Board of Education: Candidates are:

Lydia Dimmer, CRA, COT, OCT-C
Richard E. Hackel, CRA, FOPS
LeRoy D. Judkins, COA, OCT-C
Kirsten G. Locke, CRA
Bert P. Miskell, BS, OCT-C
Hoang Nguyen, CRA, CPT, OCT-C
James B. Soque, CRA, COA
It hardly feels necessary to think about the Annual Program this early in the year, but the Board of Education has been planning for this event since before we left last year's Annual Program. At this point the curriculum outline is almost complete and speakers have been selected. It is time to start thinking about staffing the workshops.

We need dedicated people to function as Workshop Coordinators. The coordinator's tasks are outlined here:

- Supervise all aspects of your designated workshop.
- Oversee, facilitate and supervise the educational experience of the workshop.
- Recruit instructors for each work station.
- Distribute workshop objectives to the instructors (Provided by the Workshop Chair)
- Assign instructors and students to equipment

We will offer workshops in the usual variety of skills; basic fundus photography, fluorescein angiography, slit lamp, gonio photography, intermediate stereo photography, SLO and of course ED and SD OCT workshops.

As the Coordinator, you will still receive CE-credits for the course you are coordination. Most important is the great satisfaction you will feel from participating as part of the Program and at the same time giving something back to the OPS.

If you are interested, please forward your name to Kirsten Locke (kglocke@meistro.net) or call 817-915-3395.

SIGN UP TODAY!

Kirsten Locke, RN. CRA.
Workshop Chair, Annual meeting 2010

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**Von Hippel-Lindau Syndrome**

von Hippel-Lindau disease (VHL) is a rare, genetic multi-system disorder characterized by the abnormal growth of tumors in certain parts of the body (angiomatosis). The tumors of the central nervous system (CNS) are benign and are comprised of a nest of blood vessels and are called hemangioblastomas. Hemangioblastomas may develop in the brain, the retina of the eyes, and other areas of the nervous system. Other types of tumors develop in the adrenal glands, the kidneys, or the pancreas. Symptoms of VHL vary among patients and depend on the size and location of the tumors. Symptoms may include headaches, problems with balance and walking, dizziness, weakness of the limbs, vision problems, and high blood pressure. Cysts (fluid-filled sacs) and/or tumors (benign or cancerous) may develop around the hemangioblastomas and cause the symptoms listed above. Individuals with VHL are also at a higher risk than normal for certain types of cancer, especially kidney cancer.¹

The name of the syndrome comes from Eugen von Hippel who described the angiomas in the eye in 1904² and Arvid Lindau who described the angiomas of the cerebellum and spine in 1927.³

1) Nind.NIH.gov web site information

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**Sign Up to be A Workshop Coordinator for the Chicago Educational Program**
The Board of Education prides itself on our Educational Programs. These events are planned far in advance and require many hours of hard work from volunteer speakers, board members, room monitors, and many others to create a successful program. Great effort is made to ensure that the best courses and workshops are repeated and new workshops and lectures are generated based on suggestions and evaluations from course attendees. The Board of Education welcomes feedback at any time on how to make our programs better. Listed to the right are the future Educational Programs, their locations, and their Chairs for the next few years. We hope that providing you with this information now will help you plan which meetings you’d like to attend in the future and allow you to contact the proper chairperson with your ideas or to volunteer your time.

The Education Chair is responsible for the educational components of the program which includes: designing and implementing the curriculum, recruiting lecturers/instructors, and applying for continuing education credits (CEC’s). If you are interested in teaching at one of these programs or have an idea for a lecture/workshop that you would like to attend, please contact the Education Chair listed for that program.

The General Chair is responsible for the logistics of the program. These duties include, but are certainly not limited to: procuring a venue for the program, procuring room blocks/negotiating with the hotel, arranging for AV services for the program, arranging food & beverages, and coordinating any social events affiliated with the program. If you are interested in contributing your ideas to any of these areas or would like to volunteer your time at a meeting, please contact the General Chair for that program.

Future OPS Programs

2010 Midyear Program
Denver
Education Chair: Debby Brown
General Chairs: Hoang Nguyen and Denice Barsness

2010 Annual Program
Education Chair: Lydia Dimmer
General Chair: Bob Cavicchi

2011 Midyear Program
Seattle, WA
Education Chair: Stephanie Attebery
General Chair: Lydia Dimmer

2011 Annual Program
Orlando, FL
Education Chair: Sarah Moyer
General Chair: Bob Cavicchi

2012 Midyear Program
Chapel Hill, NC
Education Chair: Michael Kelly
General Chair: Sarah Moyer

2012 Annual Program
Chicago, IL
Education Chair: TBA
General Chair: Bob Cavicchi

OPS Mid Year at a Mile High

The OPS 2010 Midyear Educational Program will be held in Denver, also known as the Mile High City. This year’s program features two days packed with high caliber lecturers. This educational program will provide an update on current management and research of a variety of ocular diseases and emphasize the importance of imaging those pathologies and conditions with proper techniques.

Continuing Education Credits have been approved by the OPS and JCAHPO, 7.5 credits for Friday and 8.0 credits for Saturday, for a total of 15.5 for the two days.
**BOC News**

**CRA Program Re-accredited for Another Five Years**

The NCCA Commission granted renewal accreditation to the Certified Retinal angiographer (CRA) program for a period of five years through March 31, 2015.

National Commission for Certifying Agencies (NCCA) accreditation is a significant recognition by impartial experts of the quality of our certification program and its compliance to national certification standards. You can find us listed with other accredited organizations at [http://www.credentialingexcellence.org/NCCAAccreditation/AccreditedCertificationPrograms/tabid/120/Default.aspx](http://www.credentialingexcellence.org/NCCAAccreditation/AccreditedCertificationPrograms/tabid/120/Default.aspx)

NCCA accreditation is a means of demonstrating to your board, your profession and your certificants that your certification has been reviewed by a panel of impartial experts that have determined that your program has met the stringent standards of NCCA. NCCA accreditation provides certification programs and many of our members a means to answer the question, "who reviewed your certification program?" which is sometimes asked by members of your profession, courts, and employers.

I would like to say a big THANK YOU to everyone for their support and help in our CRA program.

Beth Ann Benetz, CRA, FOPS
Chair: BOC

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**CRA Exam to be offered at Denver Mid Year Program**

We will be accepting portfolios through May 8th for the June 20th (Sunday) exam. CRA written and performance and OCT-C exams are available following the exciting Rocky Mountain midyear educational program. Attendance at this meeting is a great way to get in the mindset for the exam. Plan on joining us for the weekend.

Allen R Katz, CRA COT OCT-C

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**Check the OPS web site for CRA and OCT test dates and testing centers**

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**2010 RECERTIFICATION REMINDER**

Certified Retinal Angiographers who were certified or recertified in 2007, this is the third (2008-2010) and final year that your certification remains valid. Recertification postcards outlining the 2010 recertification requirements were mailed in February for 2010. The BOC certification website includes detailed instructions concerning the Continuing Education Credits, current CPR requirements, and current Recertification fees.

You must visit the Recertification Page on the OPS Website: [http://www.opsweb.org/Certif/Recert.html](http://www.opsweb.org/Certif/Recert.html) and PRINT your Application and Instructions. No application will be mailed.

Please review your membership status (dues payment) with the membership office prior to mailing in your completed application. The OPS membership office may be reached at 1-800-403-1677.

Please check that your OPS mailing address is correct. The BOC sends mail to the home address. If you do not receive a 2010 recertification postcard and your certification is to expire, please contact me. If I may be of any assistance, please call, write, fax or email me:

Peter Hay, CRA, FOPS
Chairman, Recertification
Letters to the editor: We welcome your letters. Please email them to the editor. Please include your name, email address and telephone number. Letters may be edited for clarity and space.

Membership: The Ophthalmic Photographers Society is open to anyone having an interest in any aspect of photography of the eye. The membership is comprised of photographers, physicians, ophthalmic technicians, and scientists. If you would like to apply for membership, go to the webpage http://www.opsweb.org/Membership/OpsMembApp.html and complete an application or contact the Membership office.

Article Submissions: Submit articles or ideas for features stories or techniques to the Editor for review. The OPSnews newsletter would like to publish articles of interest to our members, "How to" articles, research projects of interest or general information on members.

OPS Image Library: This is your opportunity to see your work in print on the OPS web site, program covers, or other OPS publications as they evolve.

The purpose of the OPS image library is to make available contributing photographers’ work for use in OPS marketing material, publications, and the annual education program cover. By having images on file from a variety of our members, this library will provide a cross section of the various imaging techniques we perform, and highlight our individual talents as these images are published. This ready library will credit the photographer when material is used, and when possible, the author will be contacted in advance to confirm the use. There is no submission fee. The image library will be accessed through the OPS Marketing Committee, and will not be open to general public distribution.

Submissions may be on CD or DVDs, in TIF, PNG, or JPEG formats. Files should contain the photographer's name and image title. This will facilitate contacting you if your work is selected for use.

Digital images may be sent to:
Alan Frohlichstein
Retinal Angiography Services
5633 Crain Street
Morton Grove, Illinois 60053
E-mail questions to Alan at: alanfroh@gmail.com

Membership

If you are not an OPS member and would like to join, select "New Membership" on the OPS web page under membership. You will first be asked to enter your contact information as you would like it to appear in the OPS directory. Submission of this form will forward your information to the Membership Office, and you will be given the opportunity to submit your payment information. If you choose not to provide a credit card number at this time, you will be contacted by the OPS Membership Office to furnish that information by phone.

Annual Membership Fee of $85.00 Includes:

The Journal of Ophthalmic Photography. Published twice yearly by the Ophthalmic Photographers’ Society, this peer-reviewed journal is dedicated to ophthalmic diagnostic imaging.

The OPS Newsletter. The OPS Newsletter is published electronically four times per year and keeps members informed of upcoming meetings, special events, certification news, employment opportunities, and short articles of interest to diagnostic photographers. Members are notified via email when a new issue is published, with a direct link to the new edition.

The OPS E-mail List. Limited to OPS members, this email list informs members of job opportunities, educational programs and other pertinent announcements before they are released to the general public. This list of email addresses is never sold or released for use by any organization or business other than the OPS.

Discounts. OPS members benefit from reduced certification program application fee.
Contribute to the OPS Archives

The OPS Archives began over 20 years ago as a legacy project by one of the OPS founding fathers, Mr. Don Wong. The archives represent a permanent collection of newsletters, programs, Board minutes and photos going back to 1969.

This is an ongoing labor of love. Members of the OPS Historical Archives committee work together to collect, organize and catalog images from a variety of sources. To date we have over 10,000 images in a photographic database. This is an ongoing project and we need your help!

Images from past educational meetings, social events, or board meetings may be sent to Denice Barsness in digital or non-digital format. Slides and prints will be digitized at our expense and returned to you in the same condition as received.

If you would like to be a member of this committee, please contact:

Denice Barsness, CRA, COMT, ROUB, FOPS
Ophthalmic Diagnostic Center
CPMC Department of Ophthalmology
2100 Webster Street Suite 219
cpmceyelab@sutterhealth.org
(415) 600-3937   FAX (415) 600-6563

Rara Avis* Members

Do you have an unusual hobby, interest, or talent outside of our field? Do you know of another member who does? The OPS Newsletter is looking for you. The Newsletter would like to publish their/your story. Please send your submissions to:

William Anderson, CRA, FOPS
OPS Newsletter Editor
william.anderson@UTSouthwestern.edu

*A rare or unique person or thing
Passenger Pick-up

“Arrivals” Level 4 alongside Jeppesen Terminal is designated as the passenger curbside pick-up area. Follow the signs on Peña Boulevard to Level 4 Terminal West or Terminal East, depending upon the airline. Deplaning passengers who are to be picked up in a private car will collect their luggage at baggage claim on Level 5 and take an escalator or elevator down to Level 4. On this level, private cars are allowed to drive through and pick up passengers, but they may not park and wait at curbside. Any unattended vehicles will be towed immediately.

Customer Service

DIA’s customer service begins with the Customer Service staff. Located in airport information booths, these employees answer questions regarding airlines, flight information and how to move around the airport. Staff at the information booths also provide paging services. Customer Service staff can guide you to the best resources to meet your needs, and they can provide tourist information about Denver and Colorado. The airport has an information booth in Jeppesen Terminal and in each concourse.

DIA information from DIA web page  FLYDIA.com

Courtesly Telephones

White courtesy telephones are located throughout the airport. Dial 2000 for a direct link to Customer Service personnel for paging, information, and to report emergencies.

Airport Lost and Found

Items found in public areas at the airport are taken to Airport Lost and Found on Level 5 North in Jeppesen Terminal, near International Arrivals. The Lost and Found office is open Monday through Friday, 8 a.m. to 7:30 p.m., and Saturday and Sunday, 8 a.m. to 6 p.m. To inquire about an item lost at an airport location (restaurant, bathroom, security screening, etc.) call (303) 342-4062 (menu option 3), (800) AIR-2DEN (menu option 4) or send an inquiry by e-mail.

Baggage Carts, Lockers and Storage

Baggage carts are located near ticket counters, baggage carousels and security-screening checkpoints in Jeppesen Terminal, Levels 5 and 6. Cart rental is $3 and machines accept coins or bills. When you return the cart to any rack you will receive a 25-cent refund. For arriving international travelers, carts are provided at no charge in the Federal Inspection Services area. For the safety of our guests, baggage carts are not allowed on the train, on moving walkways, or on escalators. Rental lockers are not available at the airport but a baggage storage facility is located in Jeppesen Terminal Level 5. For more infor-
mation, contact the Airport Baggage Center at (303) 342-5858

**Internet Access**

DIA provides free WiFi Internet access throughout the airport in Jeppesen Terminal and Concourses A, B, and C. Your wireless device should automatically detect and connect to DIA’s free public wireless network. To connect manually, use the airport's service set identifier (SSID) of DIAFREEWIFI. The SSID is case sensitive, use all capitals when entering the identifier manually. If you do not automatically connect, or if you are having trouble making a connection, call (888) 490-3771 for 24-hour customer support. Additional information about DIA’s WiFi service is available at airport information booths.

**Smoking Lounge**

DIA is a non-smoking airport with the exception of four smoking lounges. The Aviator's Club is located on the west side of Jeppesen Terminal, Level 6, in the atrium. Another smoking lounge, Mesa Verde, is on the center core mezzanine of Concourse A. Concourse B’s Aviator’s Club smoking lounge is on the mezzanine level, center core. The smoking lounge on Concourse C, Smokin’ Bear, is in the concourse level’s center core. You can also smoke outside the terminal, but not the concourses.

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Elrey B. Jeppesen Terminal

Denver International Airport’s terminal building is named for businessman and aviation pioneer Elrey B. Jeppesen, whose “Jepp” navigational maps and charts are standard equipment in most commercial airline cockpits around the world. Denver architectural firm Fentress Bradburn Architects Ltd. designed Jeppesen Terminal. The terminal has approximately 1.5 million square feet (135,000 square meters) of public space, including a central atrium that is walled by glass and covered by a translucent tensile membrane roof.

- The 1,200-foot-long (364 meter) terminal is longer than Chicago’s Sears Tower is tall. The terminal’s atrium is 900 feet (273 meters) long and 210 feet (63.7 meters) wide.
- Varieties of granite from around the world – Asia, Africa, Europe and North and South America – are used in the terminal floor. The floor pattern echoes the roof design and subtly reinforces directions of passenger flow.

Departing passengers arrive at the dual-sided Jeppesen Terminal via Peña Boulevard, the airport roadway. The roadway divides to Terminal West and Terminal East, but also separates into three traffic levels for greater convenience and less traffic congestion:

- **Departures** (Level 6) – Departing passengers, curbside baggage check-in and airline ticketing.
- **Taxi, Van, Shuttle Services** (Level 5) – Drop-off and pick-up lanes for taxis, car-rental vans, shuttles, buses, limousines.
- **Arrivals** (Level 4) – Passenger pick-up.

Two central security-screening areas are located at entrances to the airport subway system (AGTS). The AGTS links Jeppesen Terminal with Concourses A, B and C. A third security-screening area is available for people walking to Concourse A via a glass-enclosed bridge. Flight information monitors are located at each subway station entrance, and baggage information monitors are located near baggage-claim carousels.

Car rental and ground transportation carrier counters are in the terminal’s atrium between the security-screening areas. International arrivals proceed through FIS and U.S. Customs at the north end of Terminal Level 5.
Terminal Roof

Jeppesen Terminal’s white-peaked roof consists of two translucent layers of Teflon-coated fiberglass fabric independently supported by cables held in tension. At its highest point, the roof is 126 feet above the terminal’s main floor. Total cost of the roof was $36 million.

The fabric is highly resistant to dirt and pollution and provides long life with minimal maintenance. The terminal roof required approximately 375,000 square feet of material, and the adjacent curbside roof required 75,000 square feet.

Thirty-four masts and 10 miles of cable, ranging from \( \frac{3}{4} \) to 3-1/8 inches in diameter, support the roof, which weighs approximately 400 tons or 1.5 pounds per square foot. The fabric has a tensile strength of 500,000 pounds per square inch.

Concourses

Denver International Airport has three concourses (Concourse A, B and C) beyond security screening that provide access to the airline gates. Concourses B and C are accessible from Jeppesen Terminal only via the airport subway system. Concourse A can be reached by walking the passenger bridge or by taking the subway train from the terminal.

Concourse A

Accessible by train from Jeppesen Terminal or by our unique walkway which spans the airplane taxiway and gives travelers a closeup view of the airplanes as they move to their gates. Contains gates A24 through A68 and serves domestic carriers Continental, Frontier, Frontier JetExpress (Horizon), Great Lakes, and jetBlue. International carriers British Airways, Mexicana, Air Canada and Lufthansa also serve their customers from this concourse.

Concourse B

Accessible only by train from Jeppesen Terminal. Concourse B contains Gates B15 through B95 and serves United and United Express, as well as commuter flights through the Regional Jet Facility.

Concourse C

Accessible only by train from Jeppesen Terminal. Gates C28 through C50 serve domestic carriers AirTran, Alaska/Horizon, American, Big Sky, Delta, Midwest, Northwest, Southwest and US Airways.

The Train (Or Automated Guideway Transit System)

DIA’s master plan was based on using an Automated Guideway Transit System (AGTS) to transport passengers between the landside terminal and the airside concourses. The AGTS is an essential part of the overall DIA transportation system. It provides a fast and efficient link between ground transportation and air transportation. The AGTS is a critical component in the successful operation of the airport, providing quick passenger mobility through the airport's public facilities.

The system incorporates fully automated, bi-directional trains that operate in two dedicated tunnels beneath DIA. Train cars, under automatic control, run on rubber tires along concrete guideways that are in a pinched-loop configuration. Each car has four pairs of wheels that lock it to a center steel guide beam anchored to the guideway. The rubber tires of the cars allow a smooth and quiet ride.

The Automated Guideway Transit System operates with a quartet of four-car trains and carries approximately 8,300 passengers per hour in both directions, completing a 2.4-mile roundtrip in 11 minutes, stopping at seven stations to load and unload passengers.

The system operates within a TSA-secured environment. Stations and train cars are fully
handicapped accessible. Station platform windows allow passengers to see incoming trains, and large side and end car windows allow a clear view of the stations and of the art installations in the train tunnels. Fire-resistant doors on each car and station platform open automatically when a train arrives at its stop. Sensors prevent doors from closing when a door opening is not clear. Regardless of the passenger load, the vehicles automatically level themselves to match the floor height of the station platform for easy entry and exit.

Because of DIA’s expanse, it is not feasible for passengers to walk from the terminal to most departing gates. The AGTS, as a critical system, was built with redundancy and reliability, designed to ensure continuous movement of passengers by switching automatically to a reduced-service mode in case of a failure. Eleven reduced-service modes, including run-around and shuttle modes, are designed into the DIA system.

Audio and visual announcements in the stations and on the train provide passengers with emergency information. An emergency walkway was built along the entire length of the guideway, with emergency exits located every 400 feet in the train tunnels to facilitate passenger evacuation in an emergency. An elaborate smoke alarm and exhaust system was installed in the tunnels, and the power distribution system has redundant features to minimize the impact of a system failure. An uninterruptible power supply ensures that life-safety, communications and emergency equipment continues to operate even if primary power fails. The AGTS central control is located next to command centers for airport maintenance, operations and police for easy communication and coordination.

The contract to design and to provide the system was awarded to AEG Transportation Inc. in June 1990. The system underwent extensive acceptance testing and verification before DIA opened to ensure safety and dependability. DIA’s AGTS is the first airport transit system to fully address the National Fire Protection Association 130 Standard for fixed guideway transit systems. The design of the system has incorporated expansion to allow easy growth as the airport accommodates future traffic.

A bridge spanning airport taxiways, linking an airside concourse with the landside terminal, is Denver International Airport’s unique solution to providing a sterile corridor between international gates and the area for Federal Inspection Services and Customs. This double-level glass and steel bridge arcs 365 feet from DIA’s Concourse A to Jeppesen Terminal, allowing international passengers to move from their arrival gates up over the bridge’s sterile top level to the terminal for FIS and Customs processing. The lower level gives domestic passengers the option of walking between the concourse and the terminal instead of taking the underground rail system.

Every effort was made to enhance the experience of users. The bridge lines are based on clean, simple geometry that emphasizes the openness of the structure, allowing for maximum exterior views. As passengers walk over the span, much of DIA’s airfield is visible. When they look beyond the airfield they can see prairie to the east, and to the west are views of Downtown Denver and a Rocky Mountain panorama. Passengers also can look down as arriving and departing aircraft taxi beneath them. Structural designers accomplished a major feat by connecting the concourse and terminal while providing tail and wing clearance for two commercial airliners to taxi side-by-side under the bridge.

The exterior curtain walls of the bridge consist of all-glass panels that complement adjacent DIA facilities. Because of the intense physical challenges offered by the project -- such as control of heat deflections and thermal movement -- the airport chose a structural engineering firm to lead the design team. The bridge truss has some of the largest structural steel elements produced in the United States and uses huge bearings at the massive concrete abutments, allowing the bridge to accommodate up to six inches of thermal movement. The bridge has its own HVAC, fire-protection and smoke-evacuation systems, and it is tied into the airport-wide fire-detection, security and public address systems.