

Chapter 1 : Poem Catawba Wine. (Birds Of Passage. Flight The First) Lyrics © racedaydvl.com

Snow-Flakes. (Birds Of Passage. Flight The Second) by Henry Wadsworth Longfellow. racedaydvl.com of the bosom of the Air Out of the cloudfolds of her garments shaken Over the woodlands brown and bare Over the harvestfields forsaken Silent and.

Gliding flight[edit] Lesser flamingos flying in formation. When in gliding flight , the upward aerodynamic force is equal to the weight. In gliding flight, no propulsion is used; the energy to counteract the energy loss due to aerodynamic drag is either taken from the potential energy of the bird, resulting in a descending flight, or is replaced by rising air currents " thermals " , referred to as soaring flight. For specialist soaring birds obligate soarers , the decision to engage in flight are strongly related to atmospheric conditions that allow individuals to maximise flight-efficiency and minimise energetic costs. Flapping involves two stages: At each up-stroke the wing is slightly folded inwards to reduce the energetic cost of flapping-wing flight. This is a flight pattern known as "bounding" or "flap-bounding" flight. Several bird species use hovering, one family even specialized in it. True hovering by generating lift through flapping alone rather than by passage through the air demands a lot of energy. This usually confines the ability to smaller birds, but some larger birds such as a Kite [15] or an Osprey [16] [17] can hover for a short period of time. Although not a true hover, some birds remain in a fixed position relative to the ground or water by flying into a headwind. Kestrels, terns and even hawks use this wind hovering. Most birds that hover have high aspect ratio wings that are suited to low speed flying. One major exception to this are the hummingbirds , which are the most accomplished hoverers of all the birds. Hummingbird flight is different from other bird flight in that the wing is extended throughout the whole stroke, the stroke being a symmetrical figure of eight, with the wing producing lift on both the up- and down-stroke. Some hummingbirds can beat their wings 52 times a second, though others do so less frequently.

Take-off and landing[edit] A male bufflehead runs atop the water while taking off. A magpie-geese taking off. Bird landings Take-off is one of the most energetically demanding aspects of flight, as the bird must generate enough airflow across the wing to create lift. Small birds do this with a simple upward jump. Large birds take off by facing into the wind, or, if they can, by perching on a branch or cliff so they can just drop off into the air. Landing is also a problem for large birds with high wing loads. This problem is dealt with in some species by aiming for a point below the intended landing area such as a nest on a cliff then pulling up beforehand. If timed correctly, the airspeed once the target is reached is virtually nil. Landing on water is simpler, and the larger waterfowl species prefer to do so whenever possible, landing into wind and using their feet as skids. To lose height rapidly prior to landing, some large birds such as geese indulge in a rapid alternating series of sideslips or even briefly turning upside down in a maneuver termed as whiffling.

Coordinated formation flight[edit] A wide variety of birds fly together in a symmetric V-shaped or a J-shaped coordinated formation, also referred to as an "echelon", especially during long distance flight or migration. It is often assumed that birds resort to this pattern of formation flying in order to save energy and improve the aerodynamic efficiency. The wingtips of the leading bird in an echelon create a pair of opposite rotating line vortices. The vortices trailing a bird have an underwash part behind the bird, and at the same time they have an upwash on the outside, that hypothetically could aid the flight of a trailing bird. Also, the bird skeleton is hollow to reduce weight, and many unnecessary bones have been lost such as the bony tail of the early bird Archaeopteryx , along with the toothed jaw of early birds, which has been replaced with a lightweight beak. The vanes of each feather have hooklets called barbules that zip the vanes of individual feathers together, giving the feathers the strength needed to hold the airfoil these are often lost in flightless birds. The barbules maintain the shape and function of the feather. Each feather has a major greater side and a minor lesser side, meaning that the shaft or rachis does not run down the center of the feather. Rather it runs longitudinally of center with the lesser or minor side to the front and the greater or major side to the rear of the feather. This feather anatomy, during flight and flapping of the wings, causes a rotation of the feather in its follicle. The rotation occurs in the up motion of the wing. The greater side points down, letting air slip through the wing. This essentially breaks the integrity of the wing, allowing for a much easier movement in the up

direction. The integrity of the wing is reestablished in the down movement, which allows for part of the lift inherent in bird wings. This function is most important in taking off or achieving lift at very low or slow speeds where the bird is reaching up and grabbing air and pulling itself up. At high speeds the air foil function of the wing provides most of the lift needed to stay in flight. The large amounts of energy required for flight have led to the evolution of a unidirectional pulmonary system to provide the large quantities of oxygen required for their high respiratory rates. This high metabolic rate produces large quantities of radicals in the cells that can damage DNA and lead to tumours. Birds, however, do not suffer from an otherwise expected shortened lifespan as their cells have evolved a more efficient antioxidant system than those found in other animals. Most paleontologists agree that birds evolved from small theropod dinosaurs, but the origin of bird flight is one of the oldest and most hotly contested debates in paleontology. Pouncing proavis, which posits that flight evolved by modification from arboreal ambush tactics. There has also been debate about whether the earliest known bird, Archaeopteryx, could fly. It appears that Archaeopteryx had the brain structures and inner-ear balance sensors that birds use to control their flight. This was the earliest hypothesis, encouraged by the examples of gliding vertebrates such as flying squirrels. It suggests that proto-birds like Archaeopteryx used their claws to clamber up trees and glided off from the tops. Modern birds that forage in trees have much more curved toe-claws than those that forage on the ground. The toe-claws of Mesozoic birds and of closely related non-avian theropod dinosaurs are like those of modern ground-foraging birds. Note that in this scenario birds need downforce to give their feet increased grip. We propose that birds evolved from predators that specialized in ambush from elevated sites, using their raptorial hindlimbs in a leaping attack. Drag-based, and later lift-based, mechanisms evolved under selection for improved control of body position and locomotion during the aerial part of the attack. Selection for enhanced lift-based control led to improved lift coefficients, incidentally turning a pounce into a swoop as lift production increased. Selection for greater swooping range would finally lead to the origin of true flight. The authors believed that this theory had four main virtues: It predicts the observed sequence of character acquisition in avian evolution. It predicts an Archaeopteryx-like animal, with a skeleton more or less identical to terrestrial theropods, with few adaptations to flapping, but very advanced aerodynamic asymmetrical feathers. It explains that primitive pouncers perhaps like Microraptor could coexist with more advanced fliers like Confuciusornis or Sapeornis since they did not compete for flying niches. It explains that the evolution of elongated rachis-bearing feathers began with simple forms that produced a benefit by increasing drag. Later, more refined feather shapes could begin to also provide lift. Uses and loss of flight in modern birds[edit] Birds use flight to obtain prey on the wing, for foraging, to commute to feeding grounds, and to migrate between the seasons. It is also used by some species to display during the breeding season and to reach safe isolated places for nesting. Flight is more energetically expensive in larger birds, and many of the largest species fly by soaring and gliding without flapping their wings as much as possible. Many physiological adaptations have evolved that make flight more efficient. Birds that settle on isolated oceanic islands that lack ground-based predators often lose the ability to fly.

Chapter 2 : Longfellow: Birds of Passage, Birds of Passage

"Birds Of Passage. Flight The Second" Q&A. More Henry Wadsworth Longfellow albums The Complete Poetical Works of Henry Wadsworth Longfellow. Voices Of The Night.

The Bible is a modern book in the sense that it is still relevant, not just for moral principles, but in that it seems to have pre-figured much of modern technology. If there are two things of the modern world that might be considered unique they are flight and the image-media. Both were prefigured by the Bible, in language which is ageless. But what is more intriguing is that there are specific prophecies that indicate the role of planes in war. In all wars since the emergence of war planes for reconnaissance and bombing at the end of WW1, air cover and control of the air are essential for victory. Much the same is said of Edom, after predicting its destruction it is written, Therefore hear the counsel of the LORD, that he hath taken against Edom; and his purposes, that he hath purposed against the inhabitants of Teman: Surely the least of the flock shall draw them out: The earth is moved at the noise of their fall, at the cry the noise thereof was heard in the Red sea. Behold, he shall come up and fly as the eagle, and spread his wings over Bozrah: The indication is that the reference to flying in Jeremiah quoted above is in the latter days as the following is clearly future and it also speaks of flying in relationship to Edom, Moab and Ammon And in that day there shall be a root of Jesse, which shall stand for an ensign of the people; to it shall the Gentiles seek: And it shall come to pass in that day, that the Lord shall set his hand again the second time to recover the remnant of his people, which shall be left, from Assyria, and from Egypt, and from Pathros, and from Cush, and from Elam, and from Shinar, and from Hamath, and from the islands of the sea. And he shall set up an ensign for the nations, and shall assemble the outcasts of Israel, and gather together the dispersed of Judah from the four corners of the earth. The envy also of Ephraim shall depart, and the adversaries of Judah shall be cut off: Ephraim shall not envy Judah, and Judah shall not vex Ephraim. But they shall fly upon the shoulders of the Philistines toward the west; they shall spoil them of the east together: For thus hath the LORD spoken unto me, Like as the lion and the young lion roaring on his prey, when a multitude of shepherds is called forth against him, he will not be afraid of their voice, nor abase himself for the noise of them: As birds flying, so will the LORD of hosts defend Jerusalem; defending also he will deliver it; and passing over he will preserve it. Yahweh is likened to the lion and young lion in opposition to shepherds. In the British and Commonwealth forces taking Jerusalem were characterized as a lion with young lions. In with Allenby leading it was as if they were fearless driving towards Jerusalem. The battle for Beersheba was the last success of an old way of fighting, with a cavalry charge. Taking the Wells was critical as the horses needed water. The Australians staged perhaps the last successful cavalry charge, breaking through prepared Ottoman positions defended with barbed wire and machine guns. The Ottomans retired from Palestine. The Ottoman 8th Army fell back along the coast. The 7th Army retreated back to Jerusalem. Allenby used cavalry and aircraft to attack the retreating Ottoman troops November 11th: The hills were covered with mist at frequent intervals, rendering observation from the air and visual signalling impossible. The Turks had withdrawn during the night, and the London troops and yeomanry, driving back rearguards, occupied a line across the Nablus-Jerusalem road four miles north of Jerusalem, while Welsh troops occupied a position east of Jerusalem across the Jericho road. These operations isolated Jerusalem, and at about noon the enemy sent out a parlementaire and surrendered the city More than twenty airplanes were destroyed by our airmen or burned by the enemy to avoid capture. I entered the city officially at noon, December 11th, with a few of my staff, the commanders of the French and Italian detachments, the heads of the political missions, and the Military Attaches of France, Italy, and America. The population received me well. With the arrival of the Vickers Bullet, Bristol monoplane fighters, and the single-seater S. With fighters able to reach speeds of over miles per hour and climb faster than any German aircraft, the British quickly set out on offensive missions aimed at regaining command of the air. Relying on aerial photographs, http: He increased his artillery to , received Bristol airplanes that gave him control of the air. He planned to surprise the Turks with a feint attack at Gaza, where the Turks expected the attack, and make his main thrust on his right toward Beersheba. Other support was given in the capturing of Beersheba, Gaza, and Jaffa.

Operationally, he began to see the rewards of effective coordination between air and ground units and how strategic and tactical reconnaissance from above was vital to maintaining mobility below. In any case dropping leaflets did have an effect as Mustafa Kemal lamented them, actually preferring bombs! Concurrent with aerial combat, Royal Air Force RAF pilots—the RAF being officially formed on 1 April —continued their photography missions while also dropping propaganda leaflets among the already demoralized Turkish troops [http:](http://) A contemporary account shows a what seems a fulfilment of Isaiah An elderly man in a black robe, whose pinched pale face told of a long period of want, caught me by the hand and said: Oh how happy we are. The Sacred Monuments and everything connected with the Great Life and its teaching were passed on untouched by our Army. Rightly did the people rejoice. When General Allenby went into Jerusalem all fears had passed away. The Official Entry was made while there was considerable fighting on the north and east of the City, where our lines were nowhere more than yards off. The guns were firing, the sounds of bursts of musketry were carried down on the wind, whilst droning aeroplane engines in the deep -blue vault overhead told of our flying men denying a passage to enemy machines. Only a few years from the first flight, never before had planes been used so effectively. But the most decisive fulfilment of the prophecy came in They took out planes miraculously with no resistance. Israel then had to face the combined air attack from Syria, Iraq and Jordan. They managed to effectively destroy the Jordanian and Syrian air forces in the air and on the ground. From this point the command went out to take the Old City using of all things, a unit of paratroopers which are trained to be parachuted from planes into battle. It is a moment of redemption, of hope. These that fly as a cloud: World Aviation The following is an intriguing reference to world aviation in the last day. The context is how in the future the wealth of the nations will come to Jerusalem. Then thou shalt see, and flow together, and thine heart shall fear, and be enlarged; because the abundance of the sea shall be converted unto thee, the forces of the Gentiles shall come unto thee. The multitude of camels shall cover thee, the dromedaries of Midian and Ephah; all they from Sheba shall come: All the flocks of Kedar shall be gathered together unto thee, the rams of Nebaioth shall minister unto thee: Who are these that fly as a cloud, and as the doves to their windows? Surely the isles shall wait for me, and the ships of Tarshish first, to bring thy sons from far, their silver and their gold with them, unto the name of the LORD thy God, and to the Holy One of Israel, because he hath glorified thee. This is is graphically illustrated here with global aircraft movements mapped [Link to Youtube](#) The description of the conditions of the last days is, But thou, O Daniel, shut up the words, and seal the book, even to the time of the end; many shall run to and fro, and knowledge shall be increased.

Chapter 3 : Bird flight - Wikipedia

BETWEEN the dark and the daylight: When the night is beginning to lower, Comes a pause in the day's occupations, That is known as the Children's Hour. I hear in the chamber above me.

Chapter 4 : Snow-Flakes. (Birds Of Passage. Flight The Second) by Henry Wadsworth Longfellow

Under Mount Etna he lies, It is slumber, it is not death; For he struggles at times to arise, And above him the lurid skies Are hot with his fiery breath.

Chapter 5 : POEM: AMALFI. BIRDS OF PASSAGE. FLIGHT THE FOURTH BY HENRY..

A Day Of Sunshine. (Birds Of Passage. Flight The Second) by Henry Wadsworth Longfellow..O gift of God O perfect day Whereon shall no man work but play Whereon it is enough for me Not to be doing but to be Through every fibre of my brain.

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LABOR with what zeal we will: Something still remains undone, Something uncompleted still: Waits the rising of the sun.

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By the bedside, on the stair, 5: At the threshold, near the gates.

Chapter 7 : Enceladus. (Birds Of Passage. Flight The Second) by Henry Wadsworth Longfellow

(Birds Of Passage. Flight The Second) Out of the bosom of the Air Out of the cloud-folds of her garments shaken, Over the woodlands brown and bare.

Chapter 8 : Evergreen Poems: Amalfi. (Birds Of Passage. Flight The Fourth) - Poem by Henry Wadsworth

Henry Wadsworth Longfellow. Henry Wadsworth Longfellow was an American poet and educator whose works include "Paul Revere's Ride", The Song of Hiawatha, and Evangeline.

Chapter 9 : Flight in the Bible - racedaydvl.com

Snow-Flakes. (Birds Of Passage. Flight The Second) by Henry Wadsworth Longfellow. Out of the bosom of the Air Out of the cloud-folds of her garments shaken.