

KIC 011141029

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
011141029-01	OBS	No	449.750067	409.590244	1874.7	3.377	18.3	7.6	0.59	4886	2.51	0.19
011141029-02	OBS	No	579.544957	393.628891	2121.8	4.030	15.5	8.7	0.59	4886	2.73	0.14
011141029-03	OBS	No	583.002322	371.101637	3078.2	8.087	16.8	7.9	0.59	4886	6.27	0.14
011141029-04	OBS	No	393.856592	421.807037	515.0	5.861	15.0	2.3	0.59	4886	1.46	0.23
011141029-05	OBS	No	393.986282	422.464455	1256.0	10.500	14.7	-1.0	0.59	4886	2.04	0.23
011141029-06	OBS	No	416.555121	499.098582	2995.0	12.590	13.5	8.5	0.59	4886	3.23	0.21
011141029-07	OBS	No	361.888147	254.296784	1568.4	3.065	10.3	6.5	0.59	4886	2.39	0.26

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011141029-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011141029-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011141029-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011141029-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011141029-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—SAME_NTL_PERIOD—CENT_NOFITS
011141029-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_KIC_POS
011141029-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

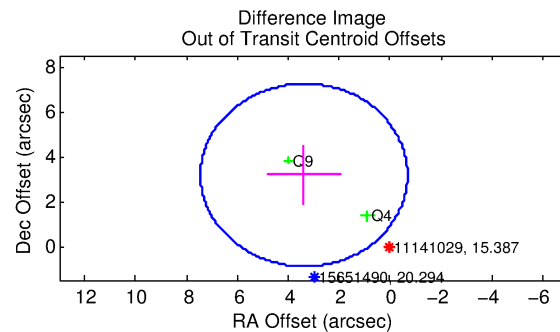
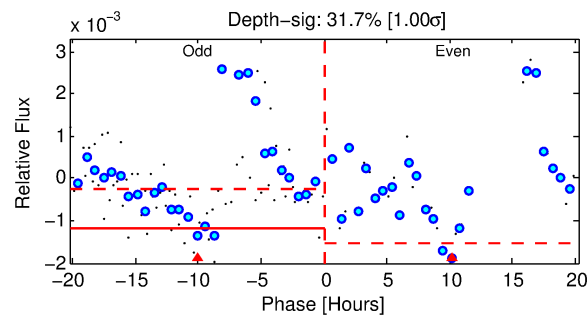
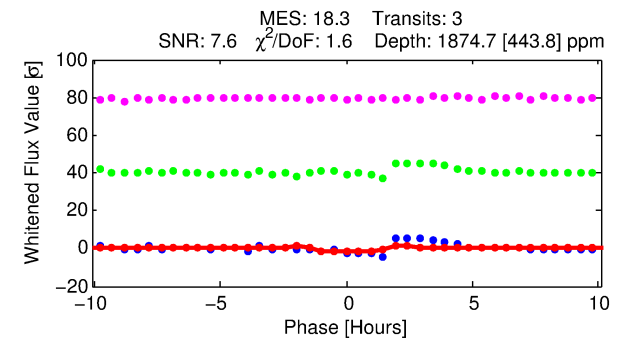
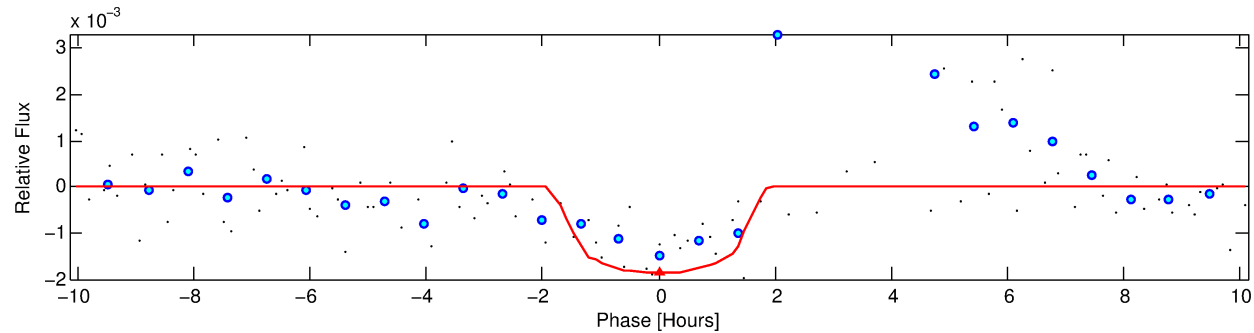
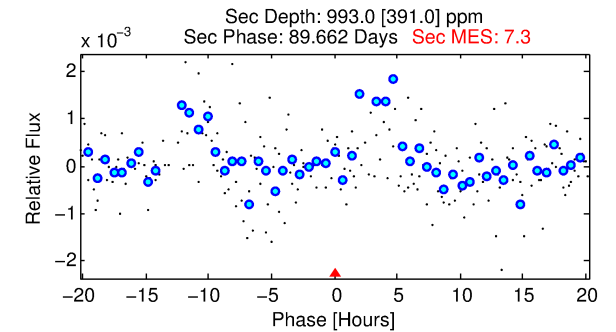
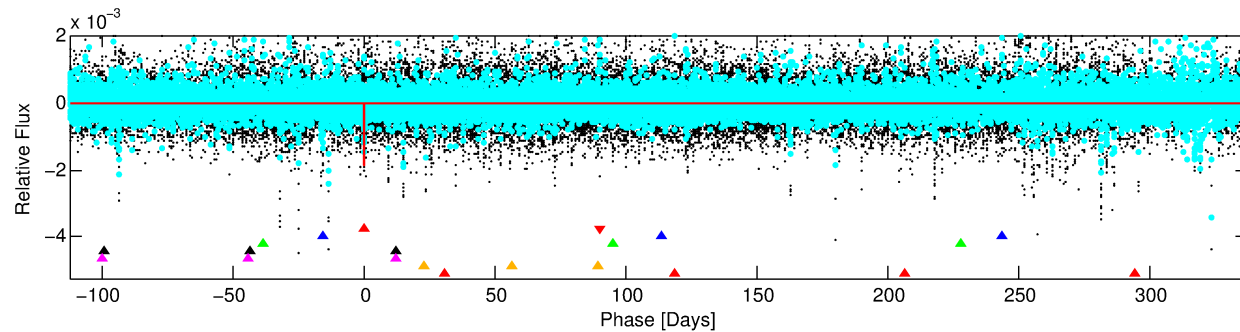
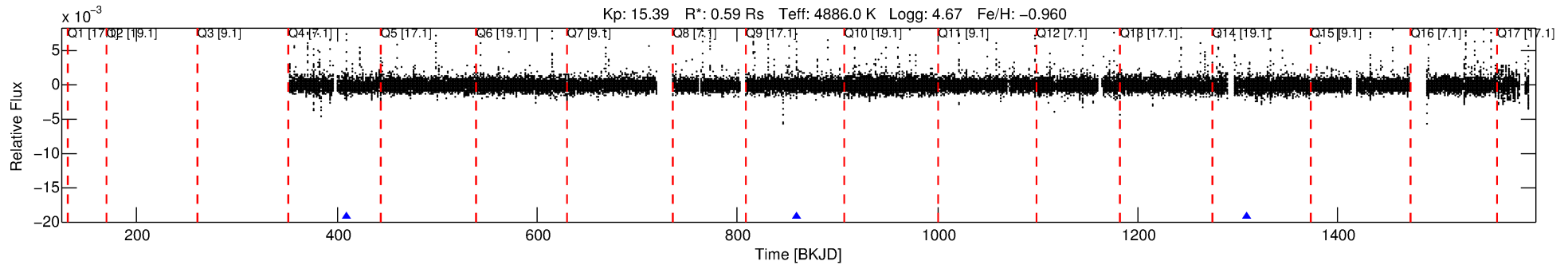
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011141029-01

No Significant Match Found

DV One-Page Summary

KIC: 11141029 Candidate: 1 of 7 Period: 449.750 d



DV Fit Results:

Period = 449.75007 [0.00649] d
Epoch = 409.5902 [0.0078] BKJD
Rp/R* = 0.0392 [0.0998]
a/R* = 1014.48 [9776.79]
b = 0.29 [30.35]
Seff = 0.19 [0.03]
Teq = 169 [7] K
Rp = 2.51 [6.39] Re
a = 0.9604 [0.0658] AU
Ag = 79764.68 [406925.58] [0.20 σ]
Teffp = 4379 [5586] K [0.75 σ]

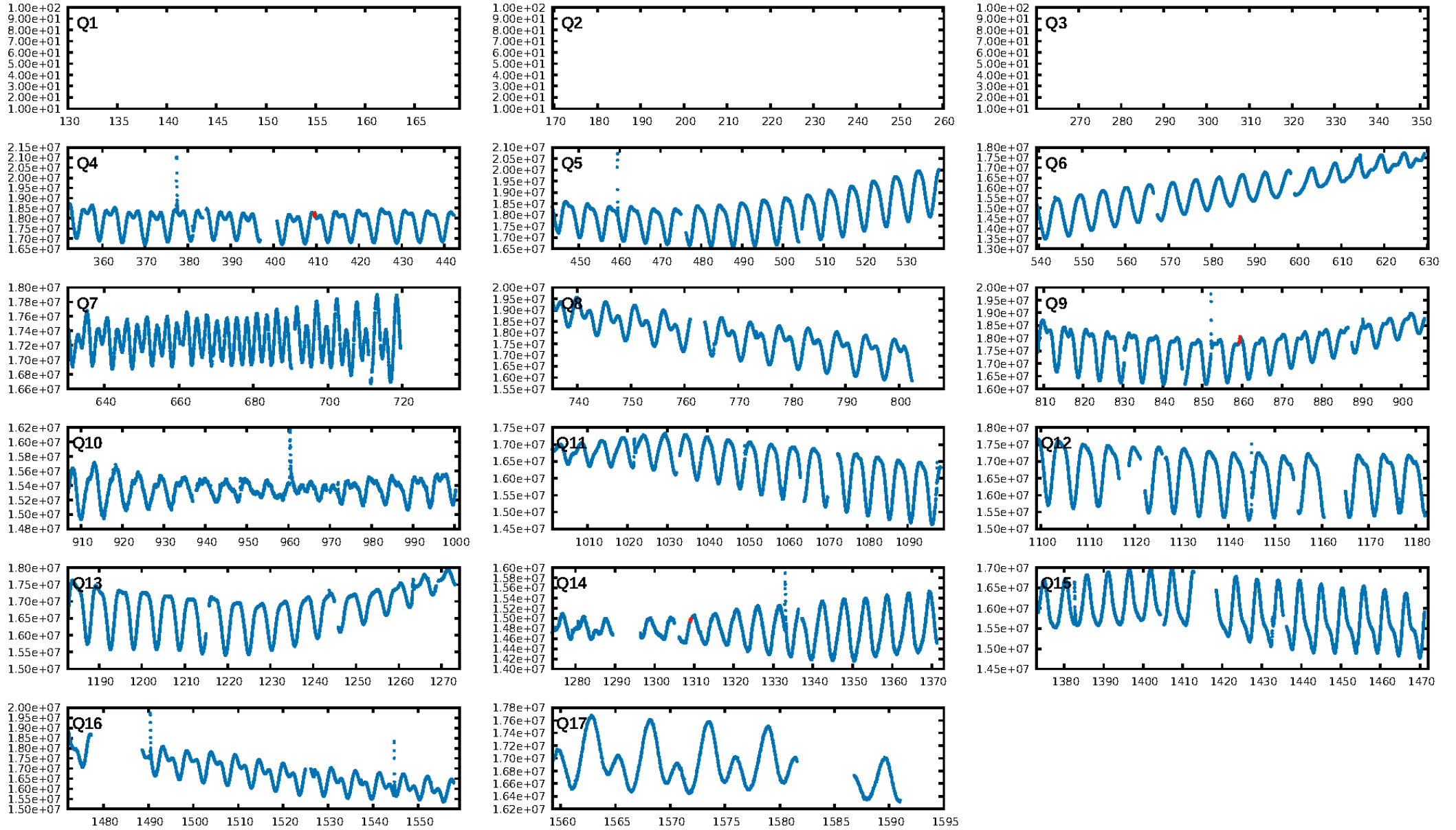
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [61.12 σ]
LongPeriod-sig: 100.0% [592.45 σ]
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 24.7%
Bootstrap-pfa: 6.94e-20
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -9.382
Centroid-sig: 14.2%
Centroid-so: 5.178 arcsec [4.03 σ]
OotOffset-rm: 4.628 arcsec [3.42 σ]
KicOffset-rm: 0.950 arcsec [1.10 σ]
OotOffset-st: 0/0/1/1 [2]
KicOffset-st: 0/0/1/1 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [3/3]

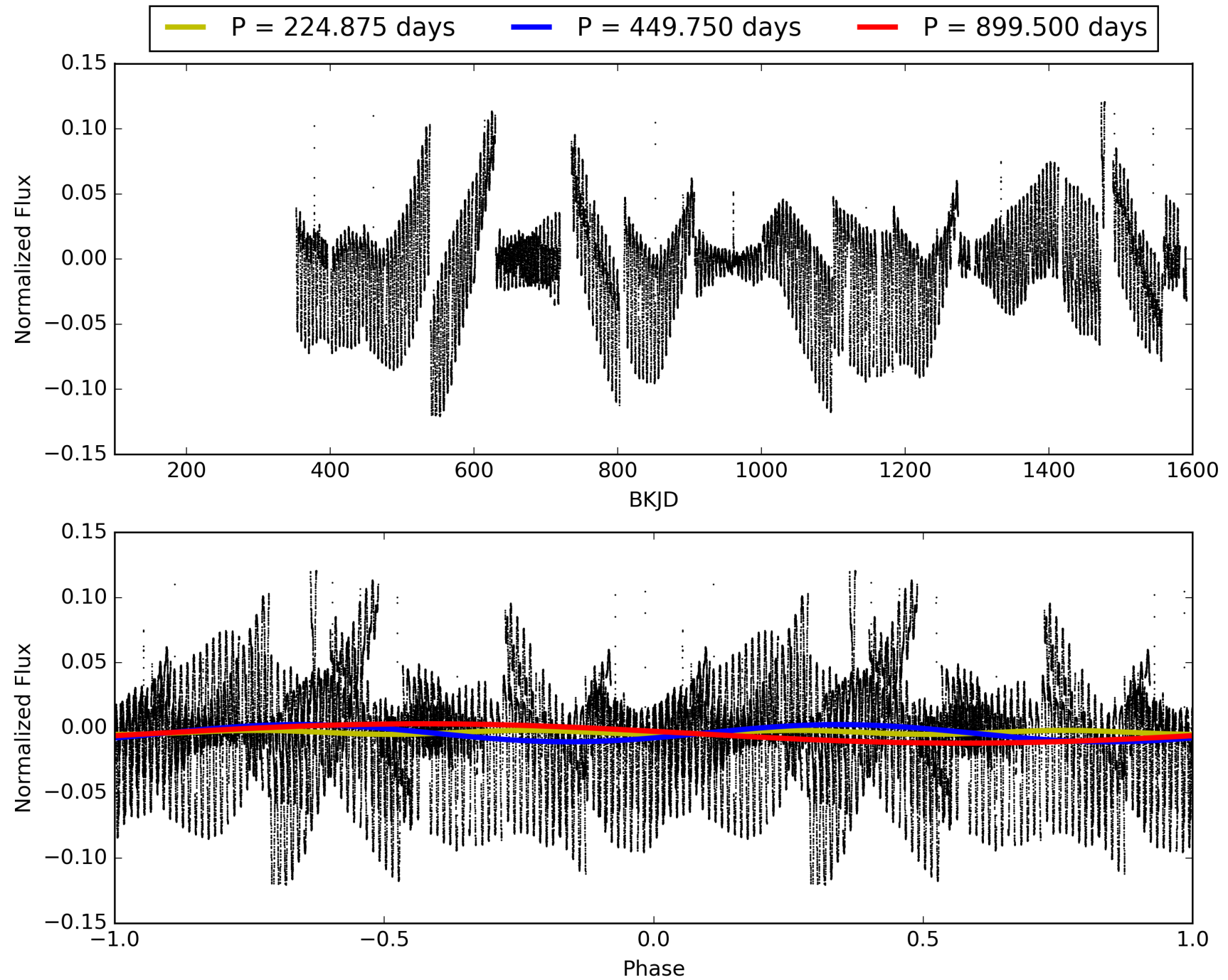
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:41:12 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 011141029-01, PDC Light Curves

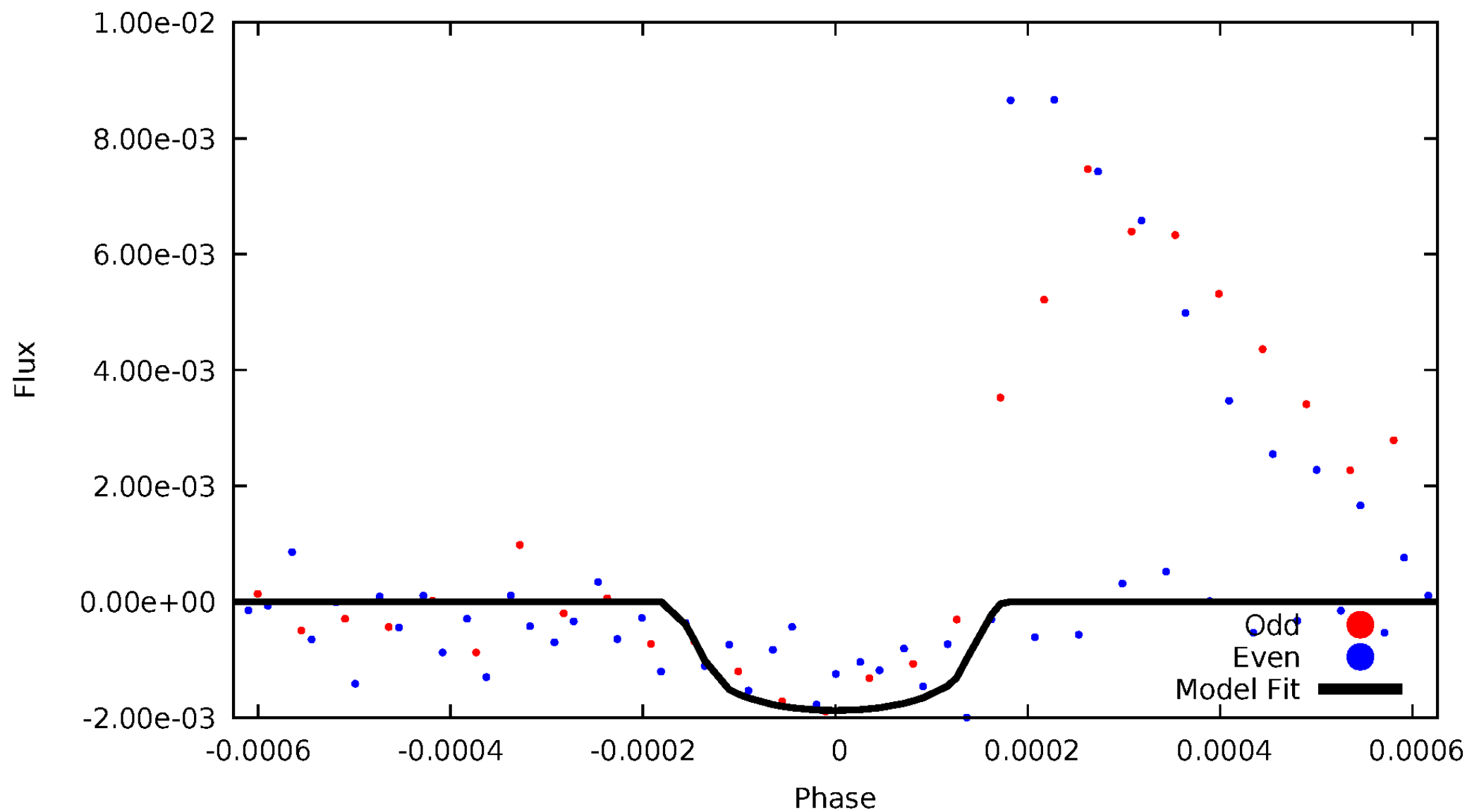


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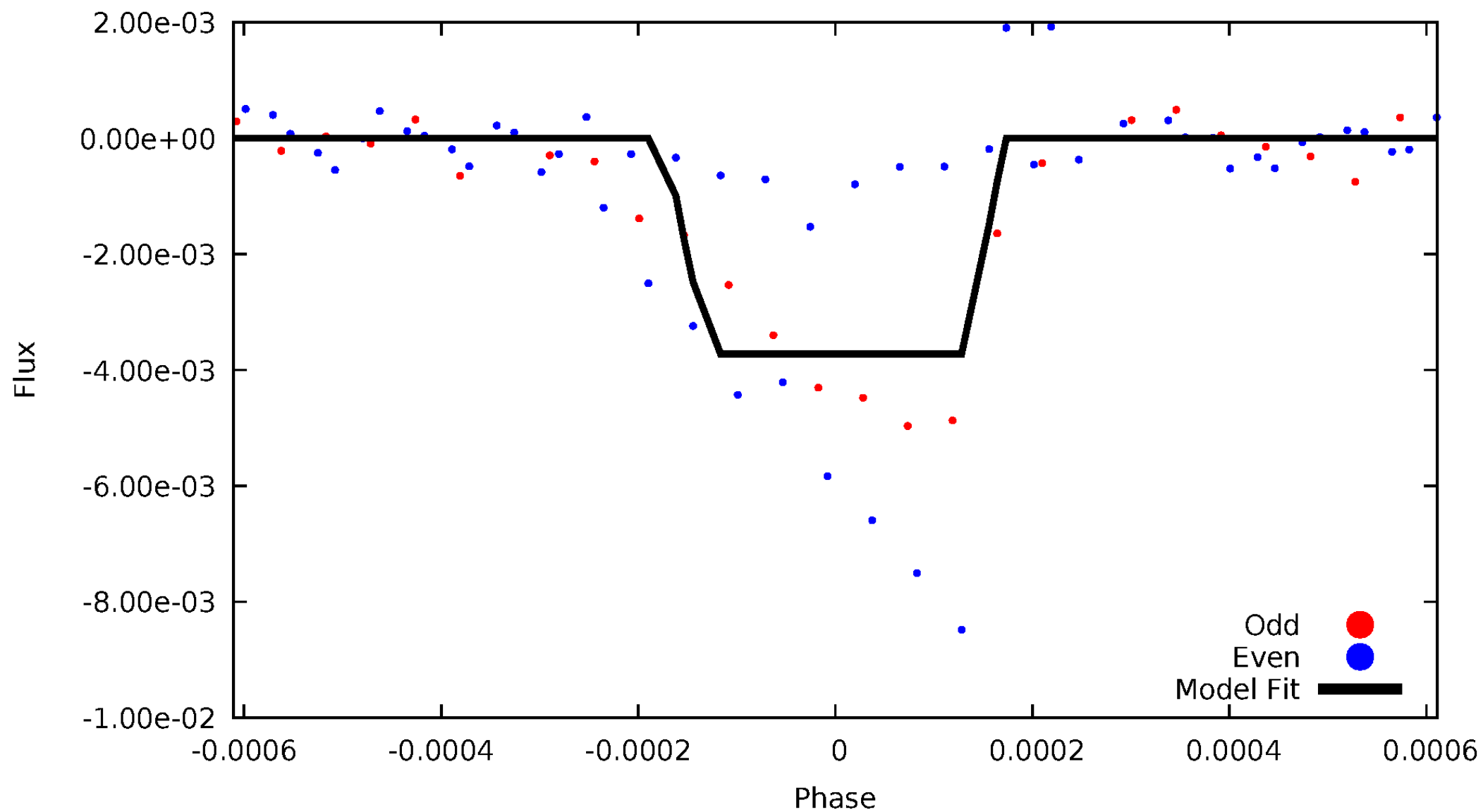
DV Odd/Even

TCE 011141029-01

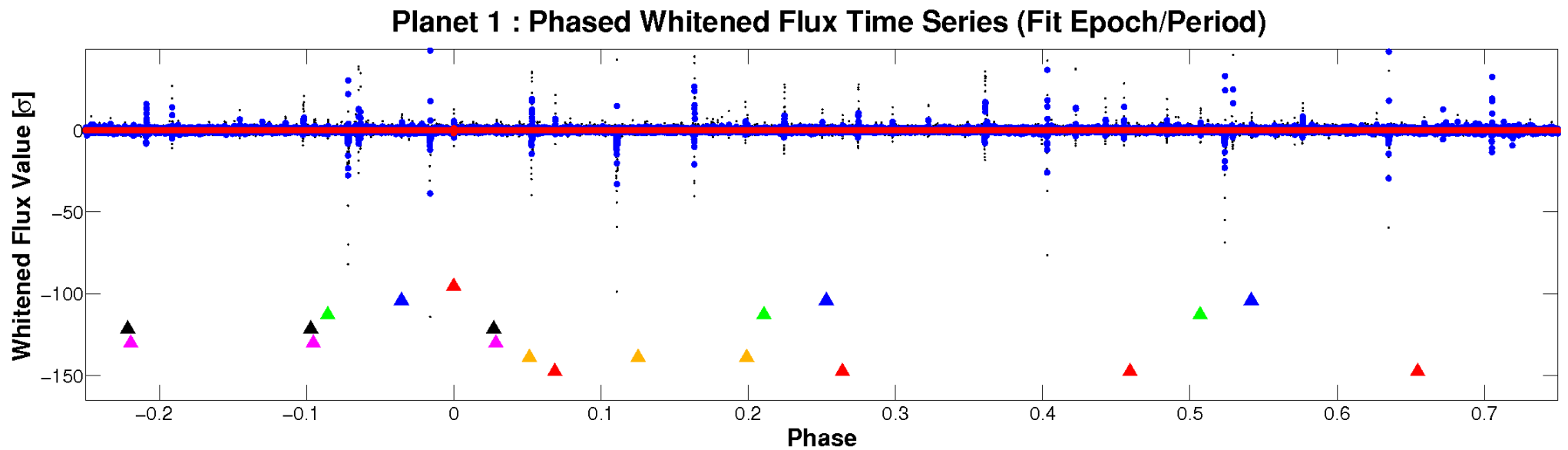
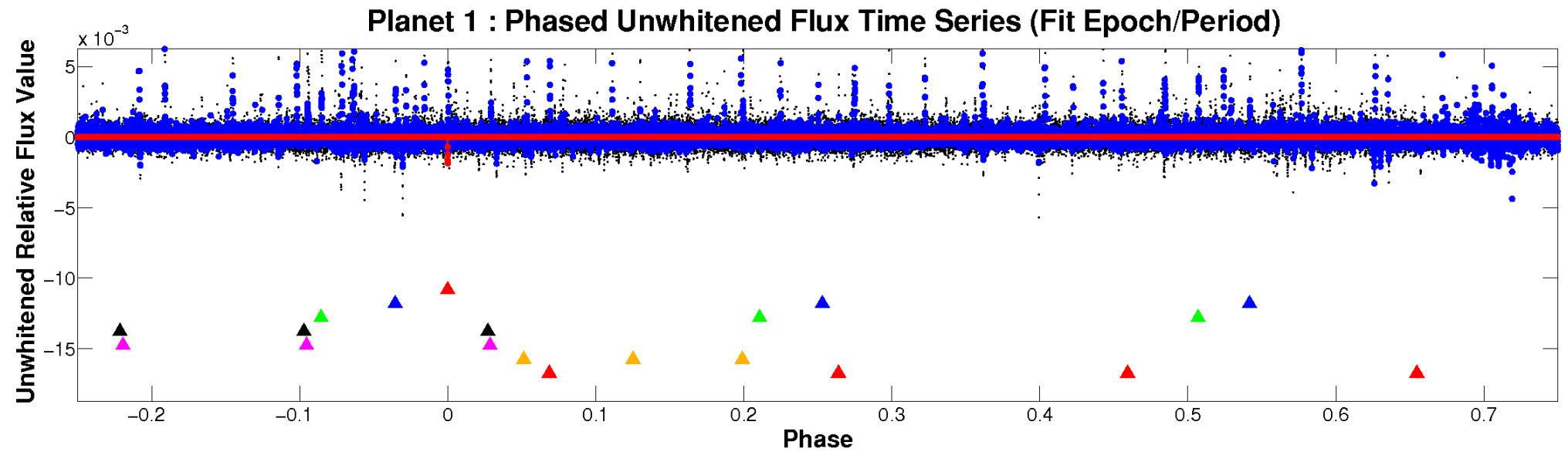


ALT Odd/Even

TCE 011141029-01

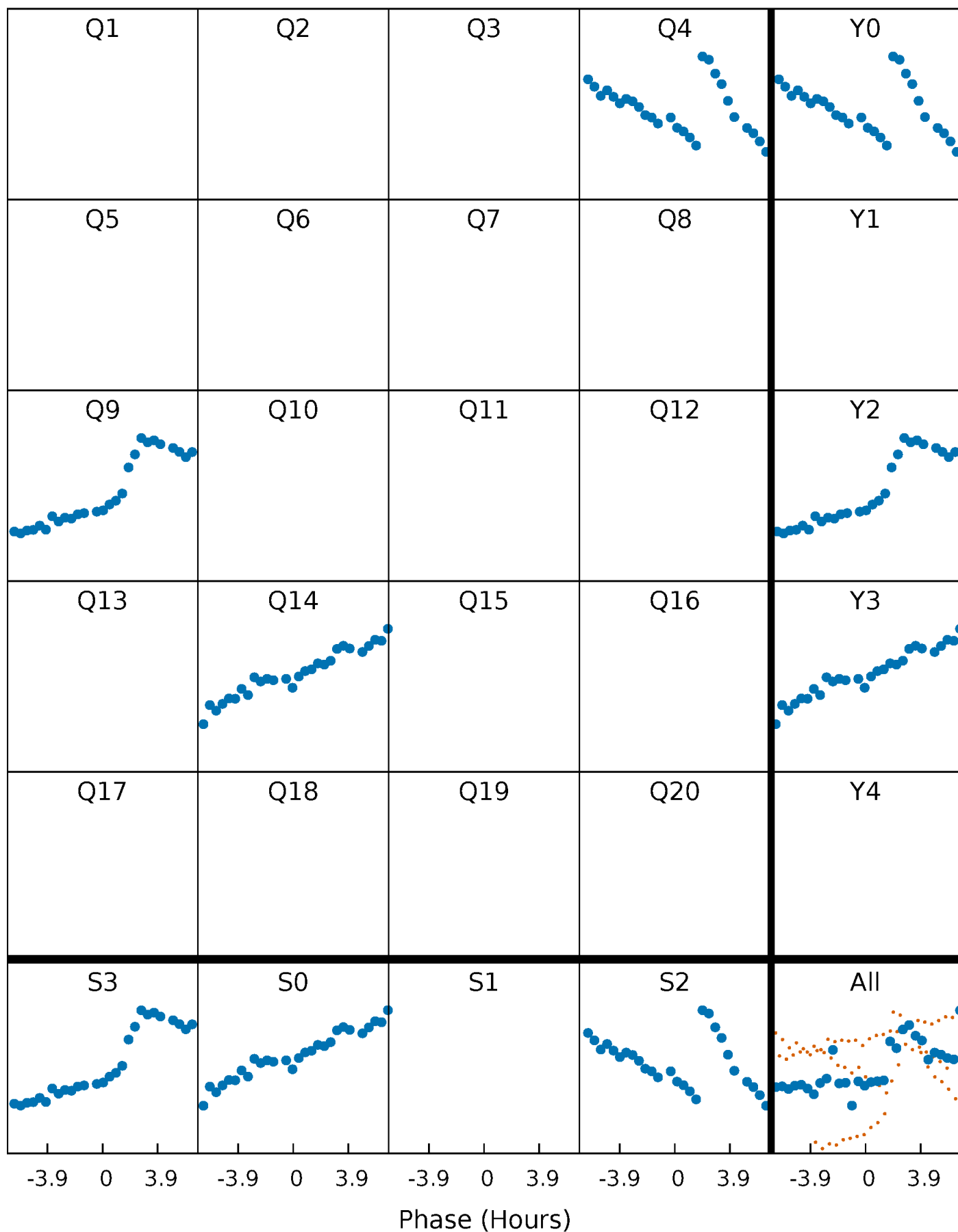


Non-Whitened Vs. Whitened Light Curve



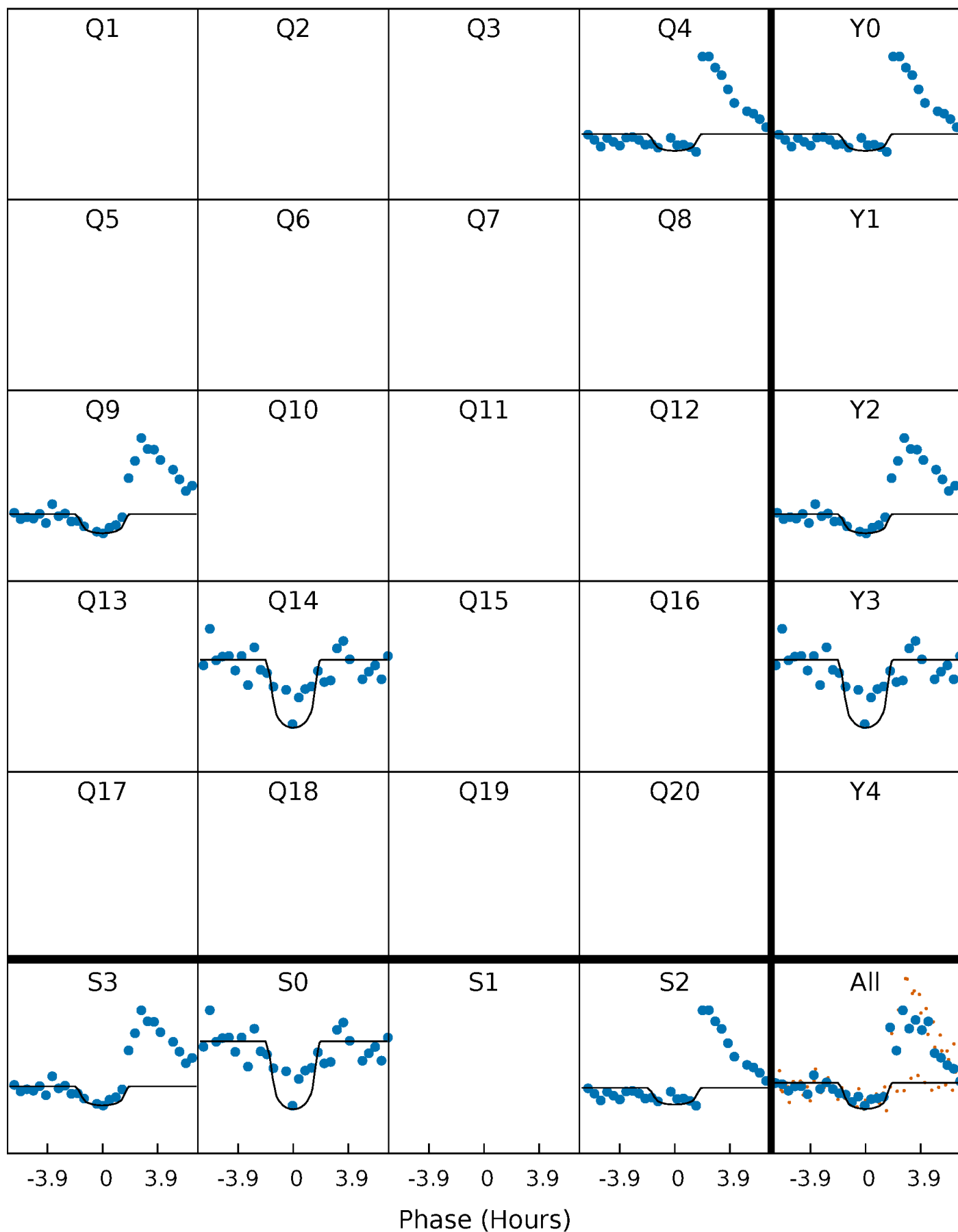
PDC Quarter-Phased Transit Curves

TCE 011141029-01 P=449.750067 Days $T_0=409.590244$ (BKJD)



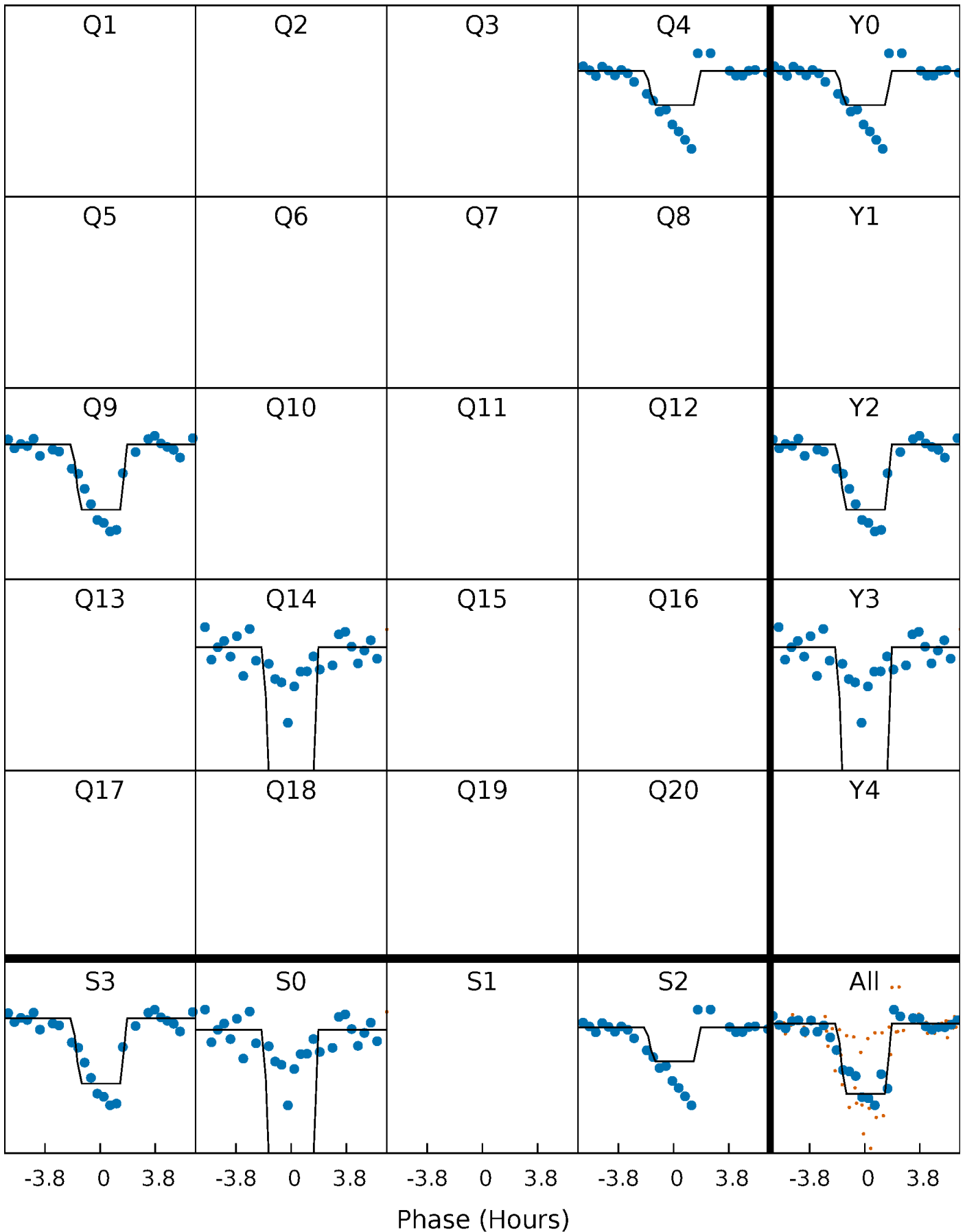
DV Quarter-Phased Transit Curves

TCE 011141029-01 P=449.750067 Days $T_0=409.590244$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

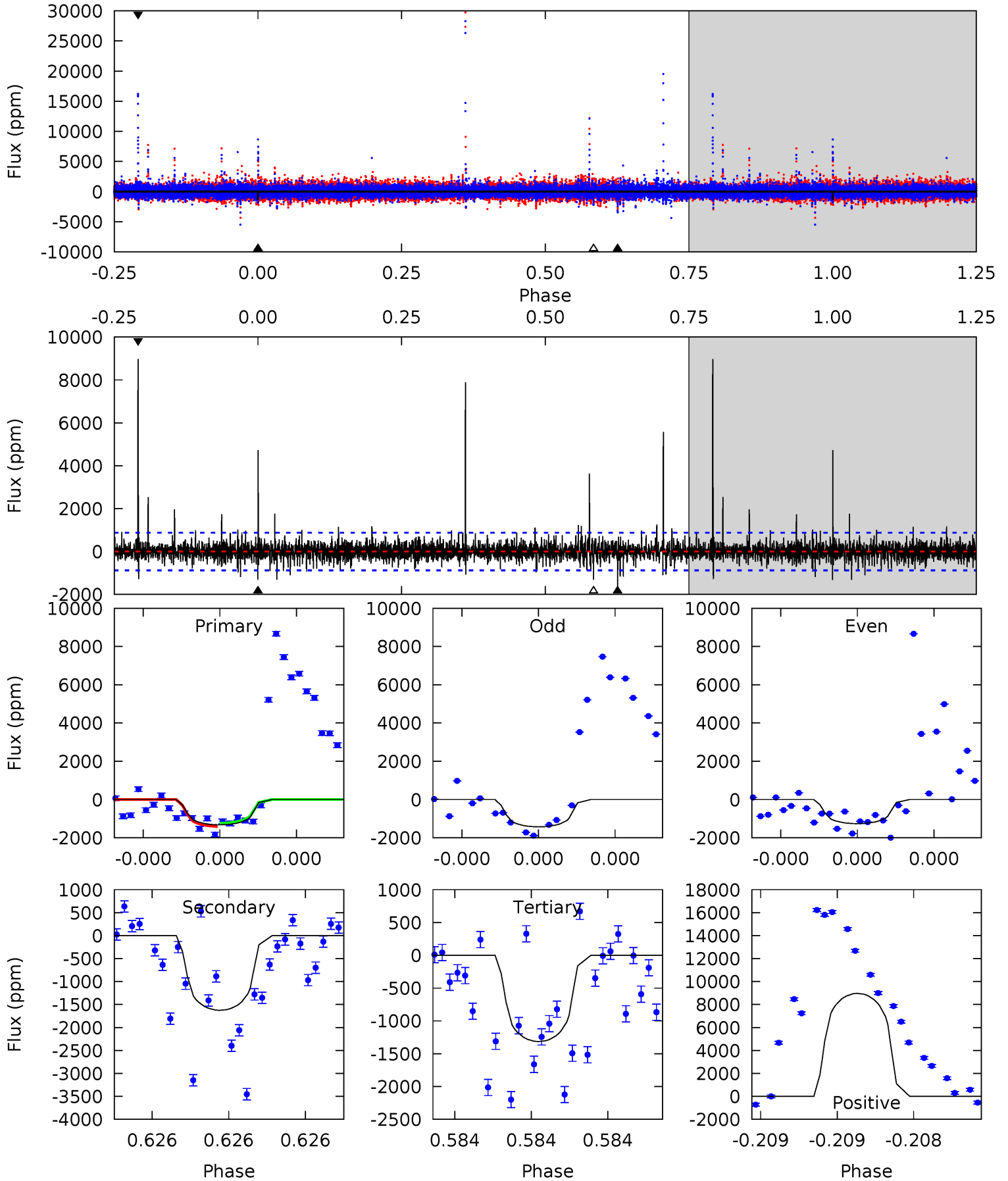
TCE 011141029-01 P=449.749467 Days $T_0=409.594087$ (BKJD)



DV Model-Shift Uniqueness Test

011141029-01, P = 449.750067 Days, E = 409.590244 Days

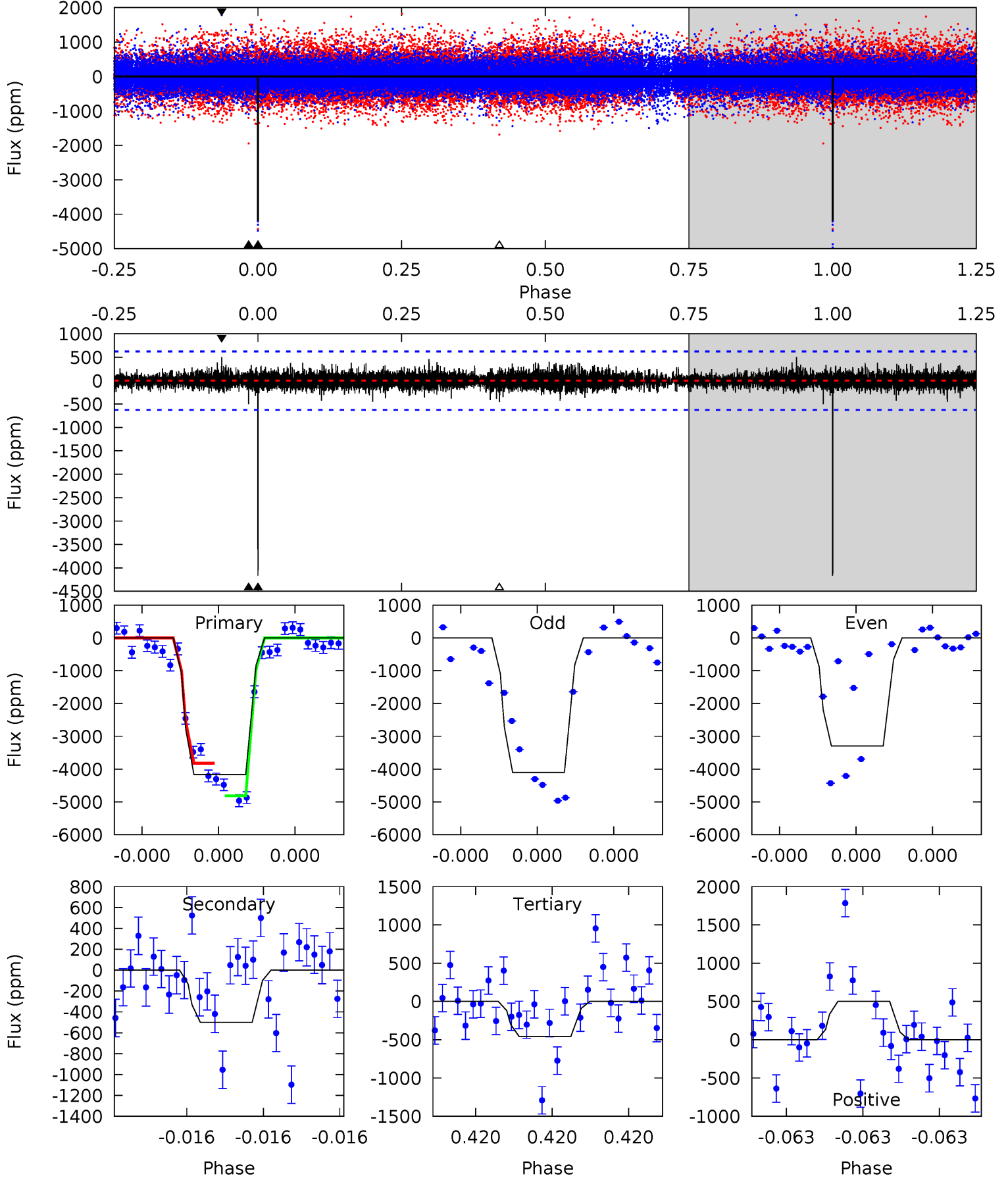
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.53	10.5	8.49	57.9	5.65	3.60	2.24	0.04	-49.4	2.02	-47.4	0.24	0.93	0.85	0.54



Alt Model-Shift Uniqueness Test

011141029-01, P = 449.749467 Days, E = 409.594087 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
37.6	4.51	4.11	4.52	5.64	3.59	0.81	33.5	33.1	0.40	-0.01	4.60	0.89	0.11	0



Stellar Parameters For KIC 011141029

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4886^{+175}_{-175}	$4.667^{+0.056}_{-0.036}$	$-0.960^{+0.300}_{-0.300}$	$0.587^{+0.047}_{-0.042}$	$0.584^{+0.055}_{-0.025}$	$4.064^{+0.916}_{-0.559}$
	+4%/-4%	+1%/-1%	+31%/-31%	+8%/-7%	+9%/-4%	+23%/-14%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011141029-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1627 ± 155	$5.19^{+5.44}_{-3.46}$	234^{+10}_{-9}	3780^{+2114}_{-781}	$31012^{+258318}_{-23712}$
Alt.	-500 ± 111	$6.28^{+5.82}_{-4.00}$	235^{+9}_{-9}	2954^{+1196}_{-476}	6316^{+46770}_{-4679}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

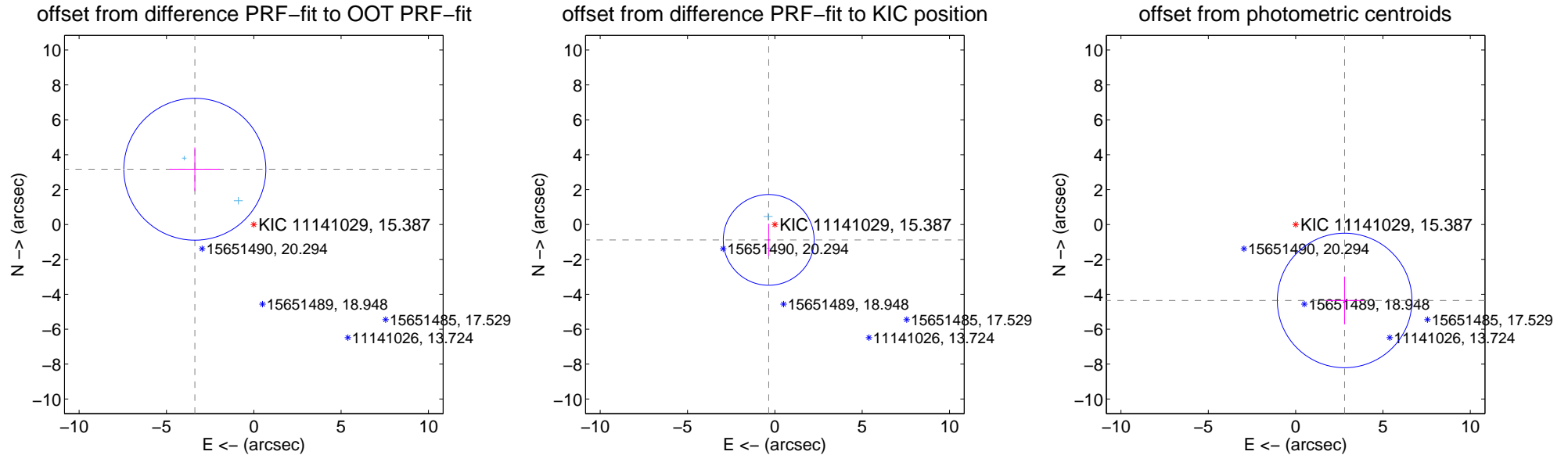
DV Centroid Data

Supplemental centroid analysis for 011141029-01. Kepler magnitude: 15.39. Transit SNR 7.58

There are 2 quarters with good PRF difference image offsets

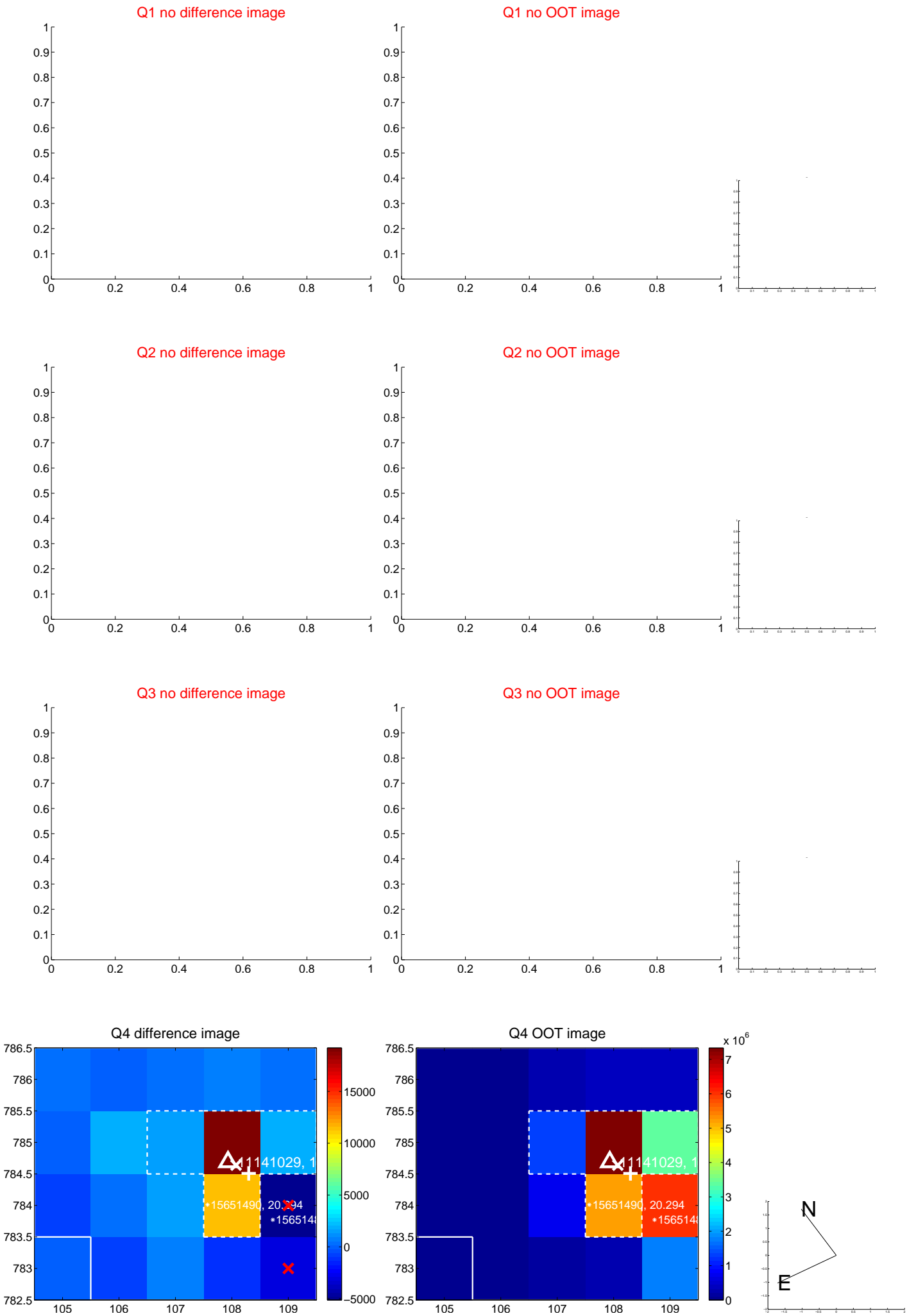
The OOT PRF centroid is offset from the target star catalog position by about 6.31 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.628 ± 1.355	3.42	3.375 ± 1.439	3.167 ± 1.254
PRF-fit source offset from KIC position	0.950 ± 0.867	1.10	0.352 ± 0.070	-0.882 ± 0.933
photometric centroid source offset	5.18 ± 1.28	4.03	-2.81 ± 1.06	-4.35 ± 1.37

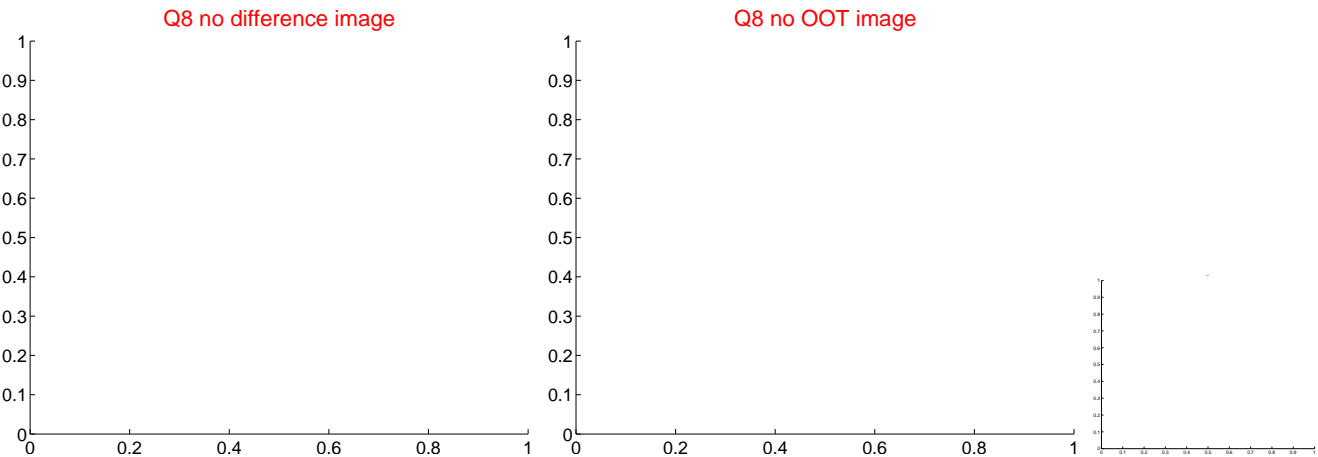
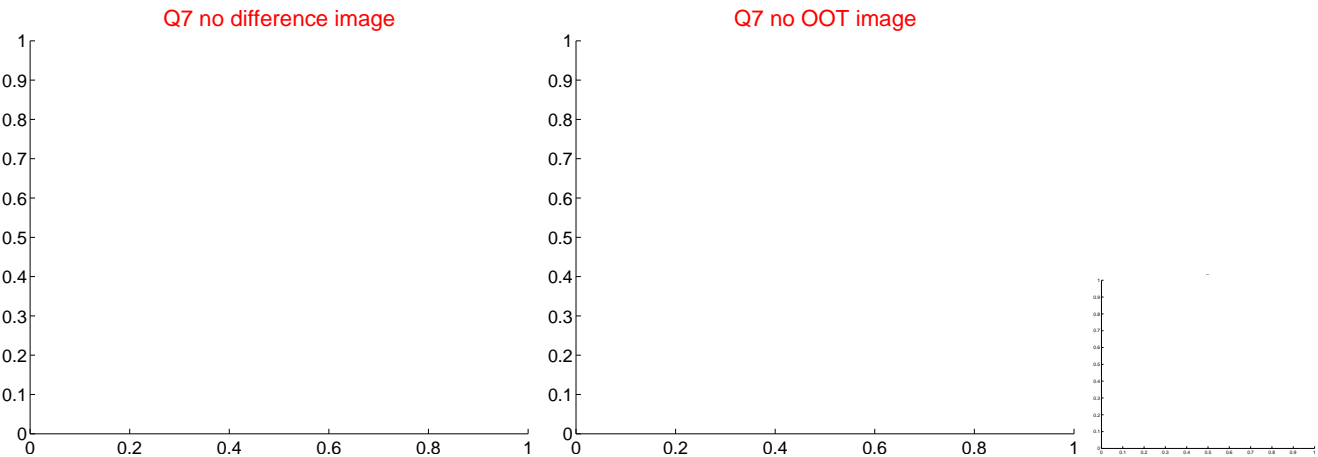
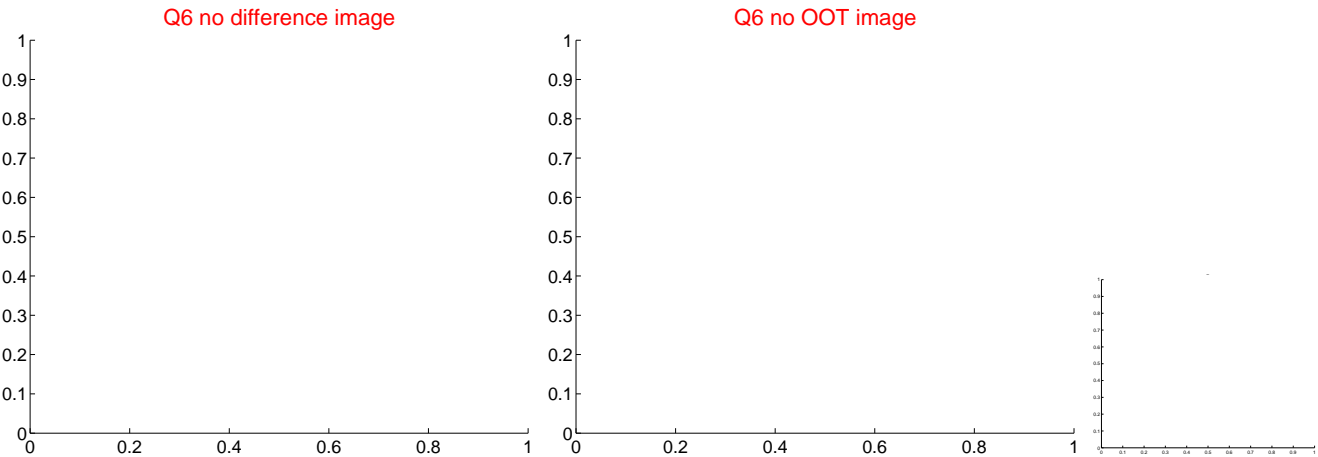
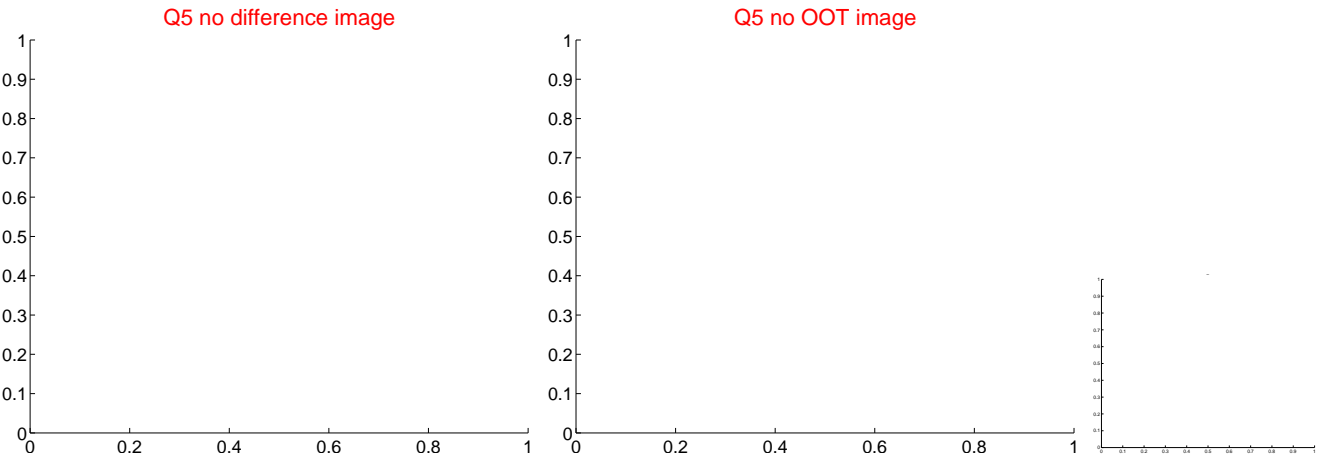


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

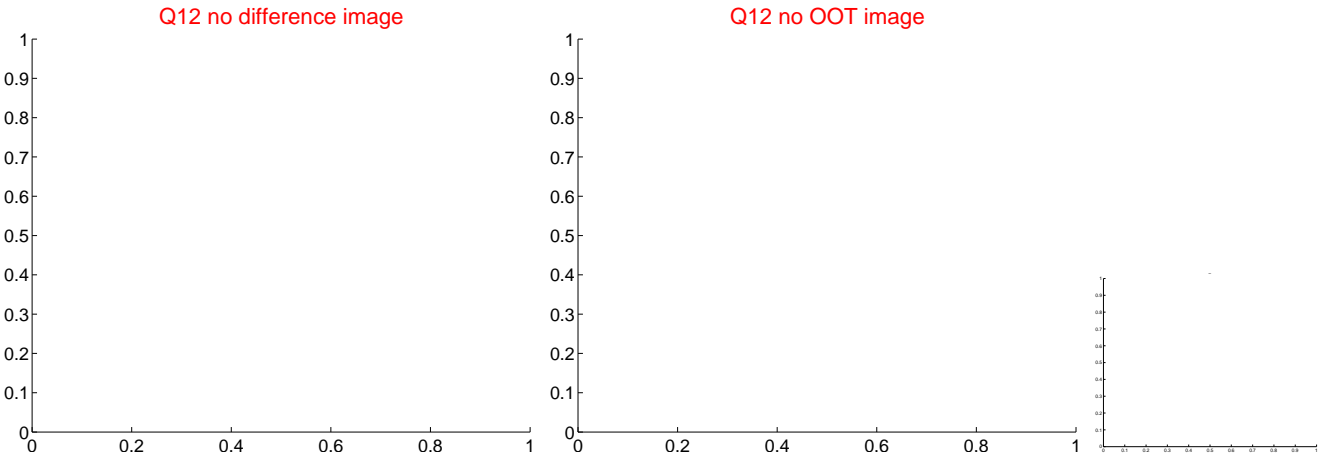
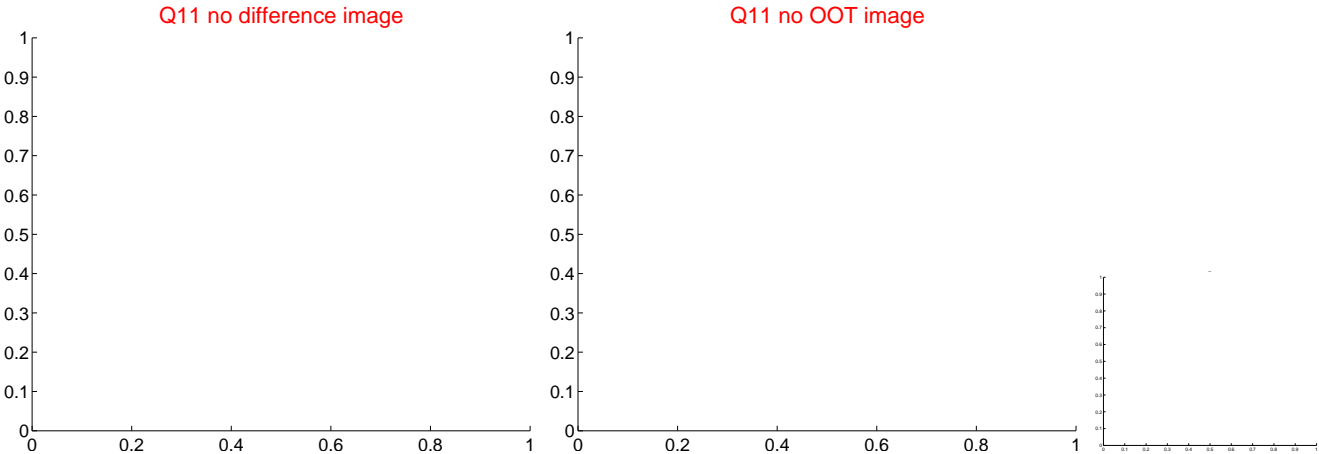
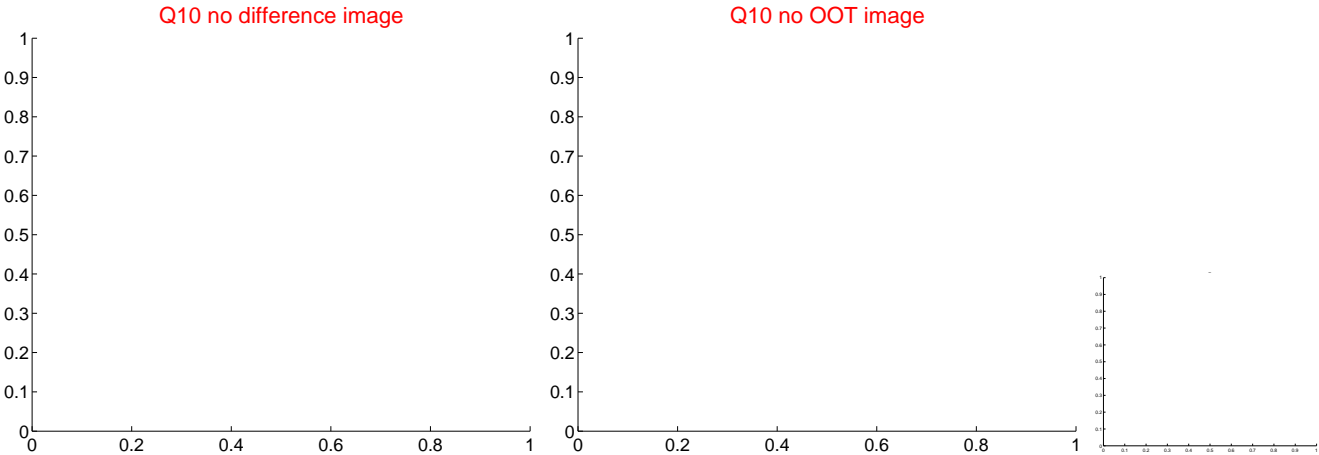
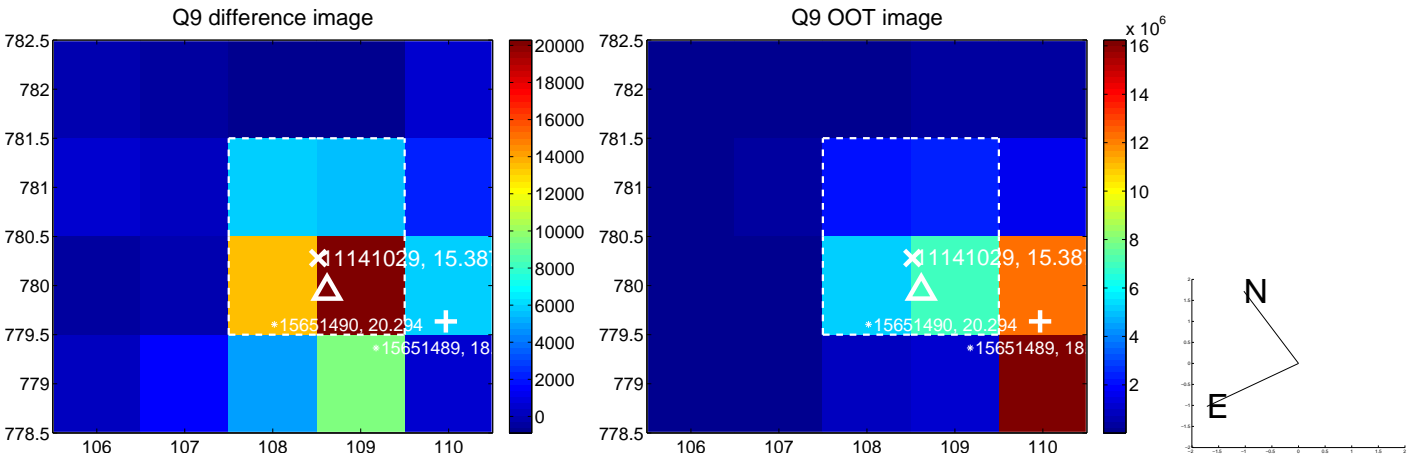
white \times : KIC target position; +: OOT centroid; Δ : difference centroid. red \times : large negative pixel value.



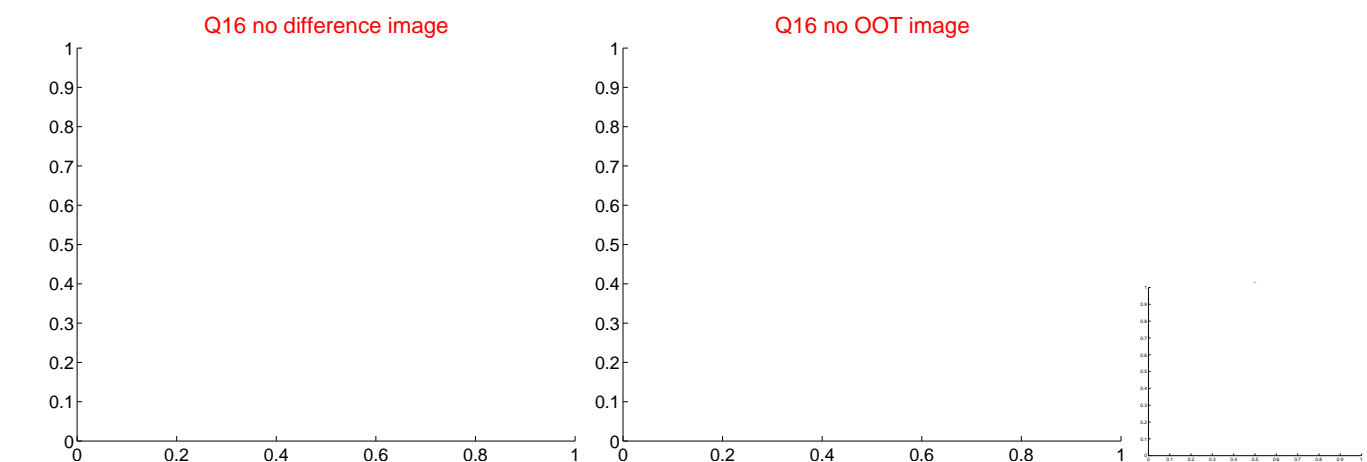
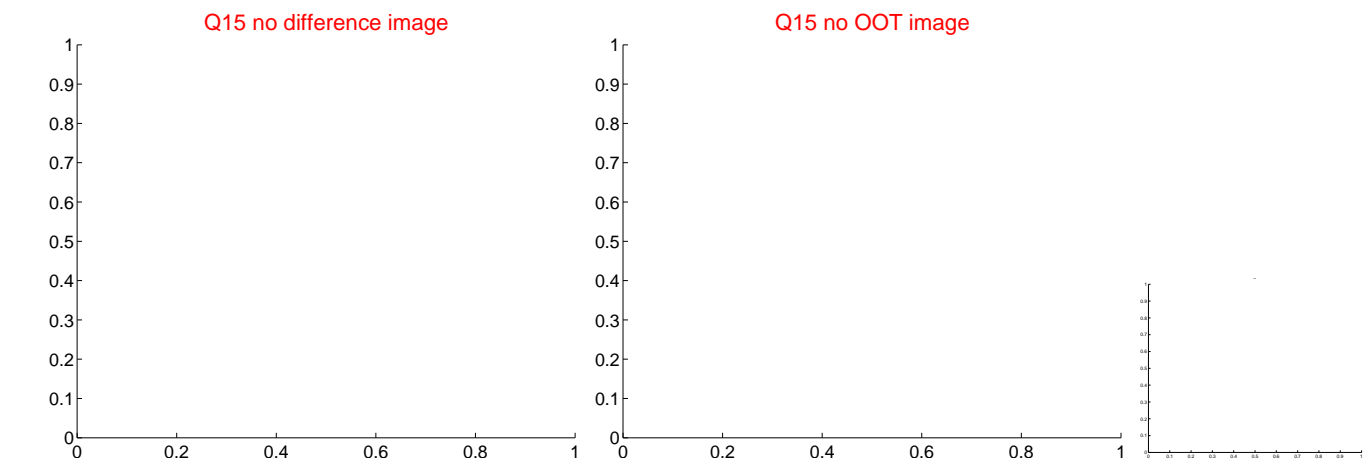
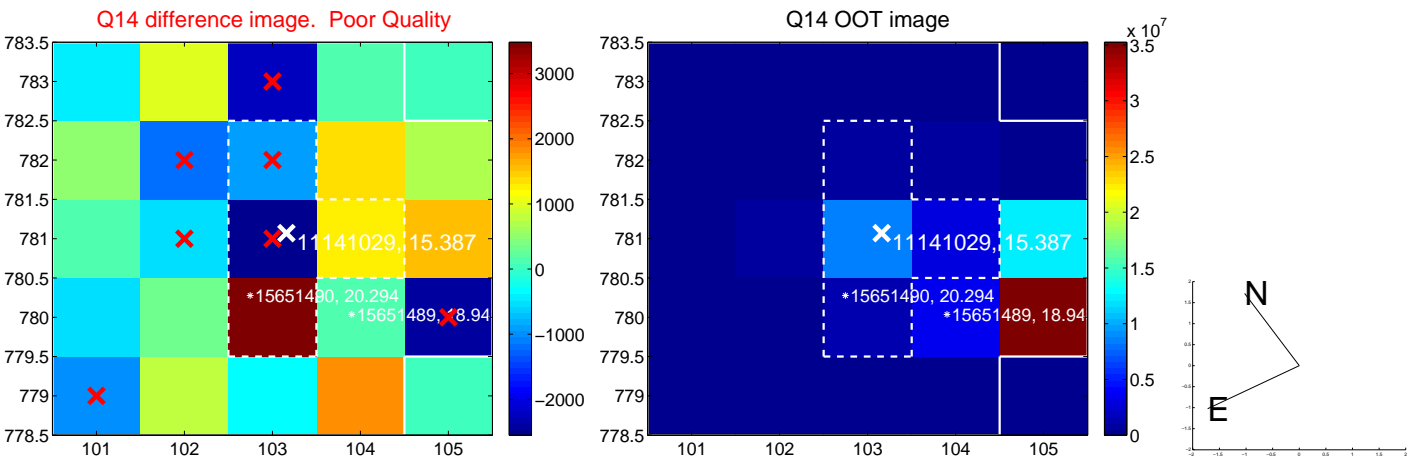
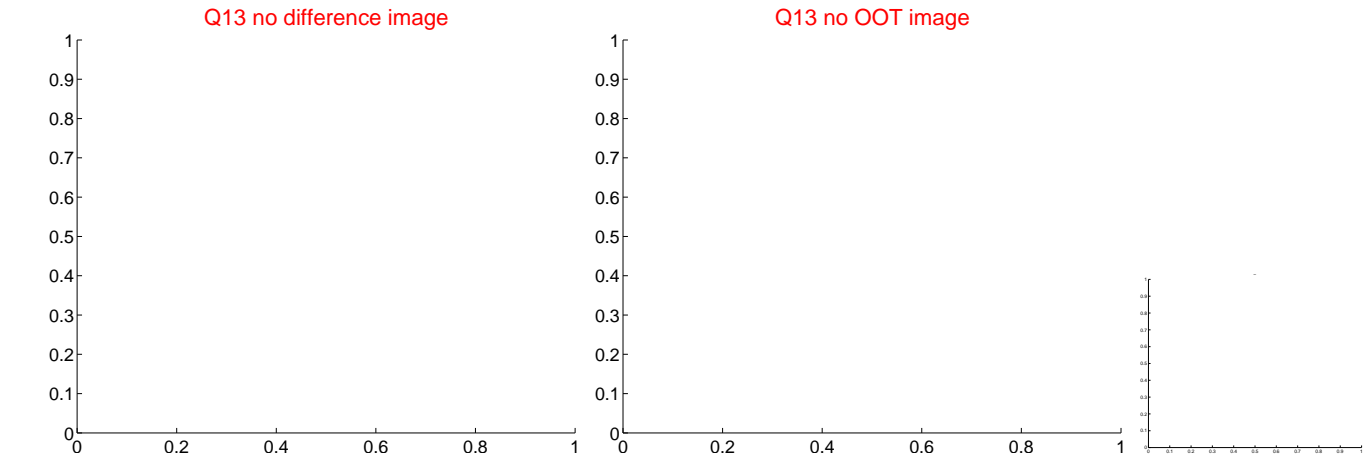
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



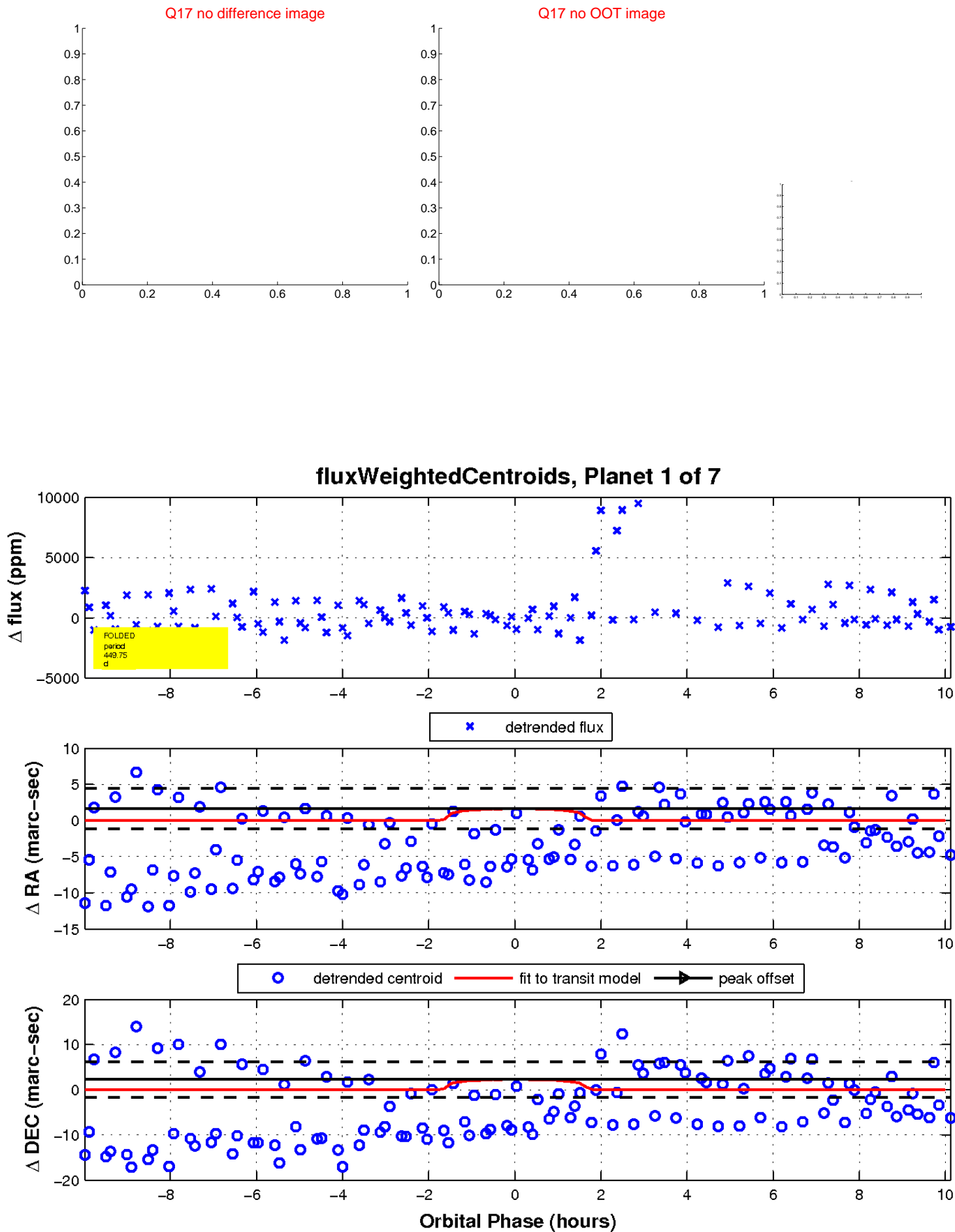
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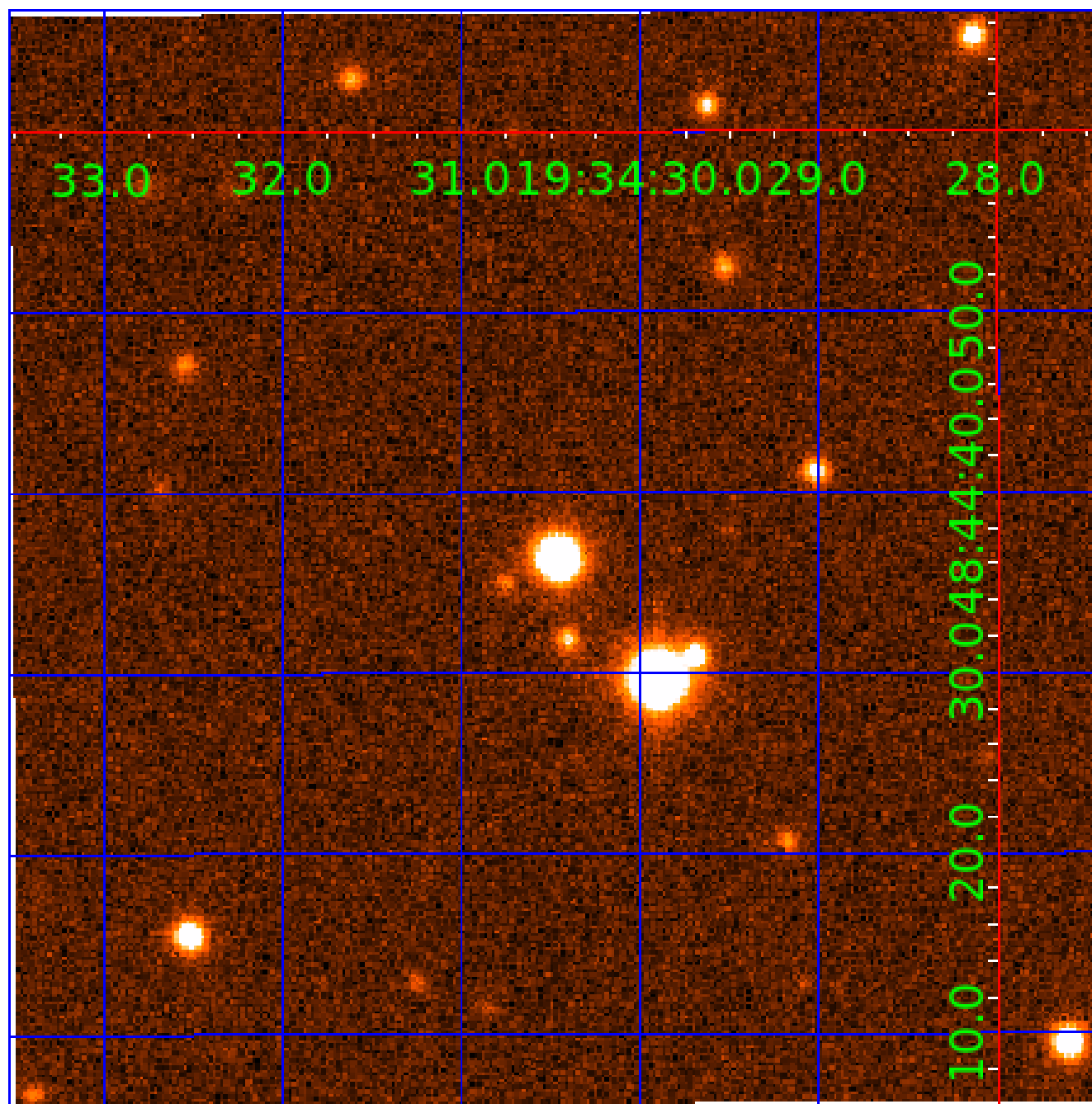


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011141029

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
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Robovetter Results

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011141029-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011141029-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011141029-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011141029-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—SAME_NTL_PERIOD—CENT_NOFITS
011141029-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_KIC_POS
011141029-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

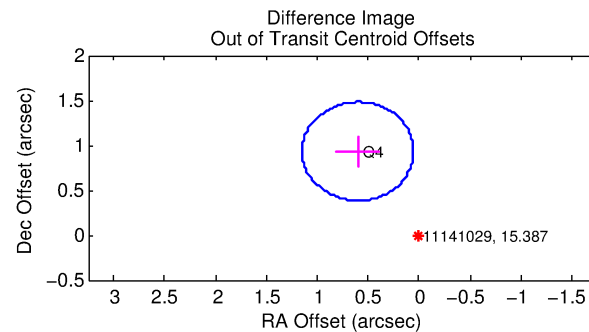
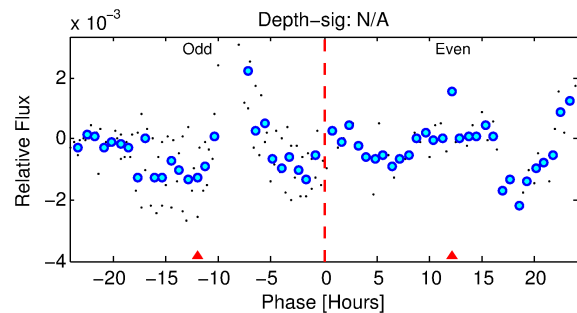
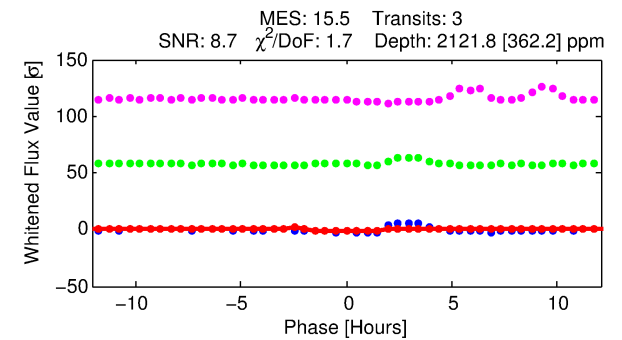
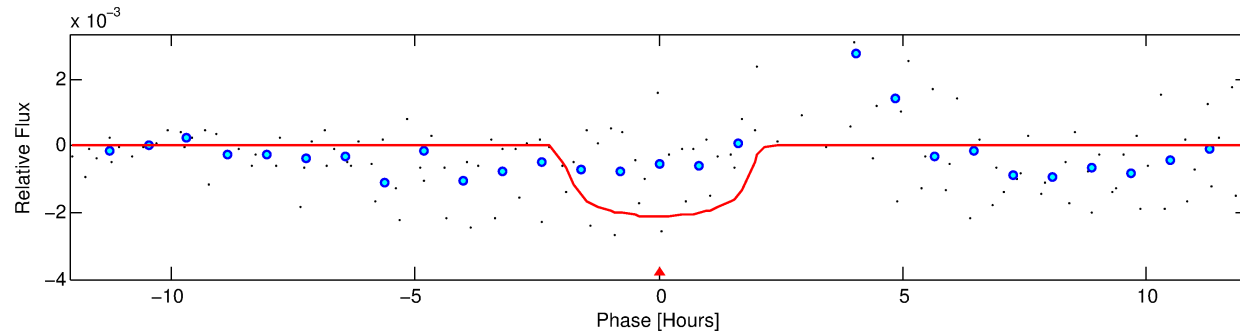
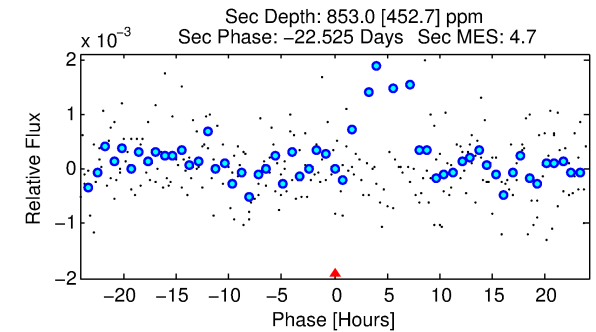
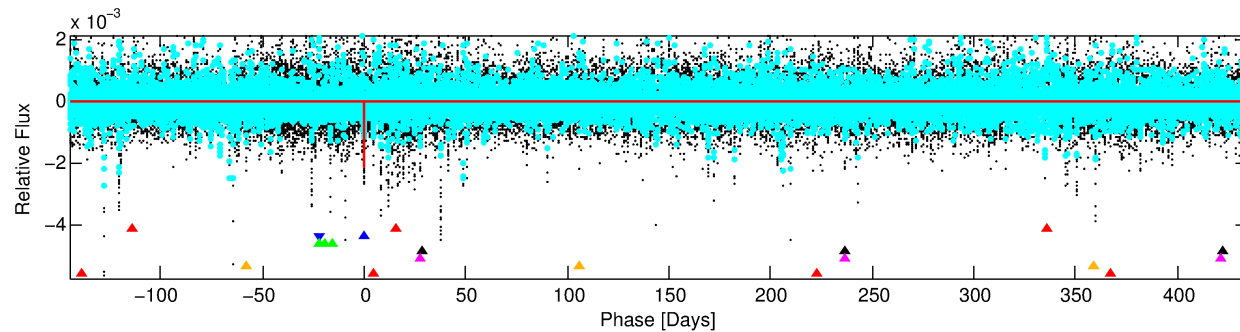
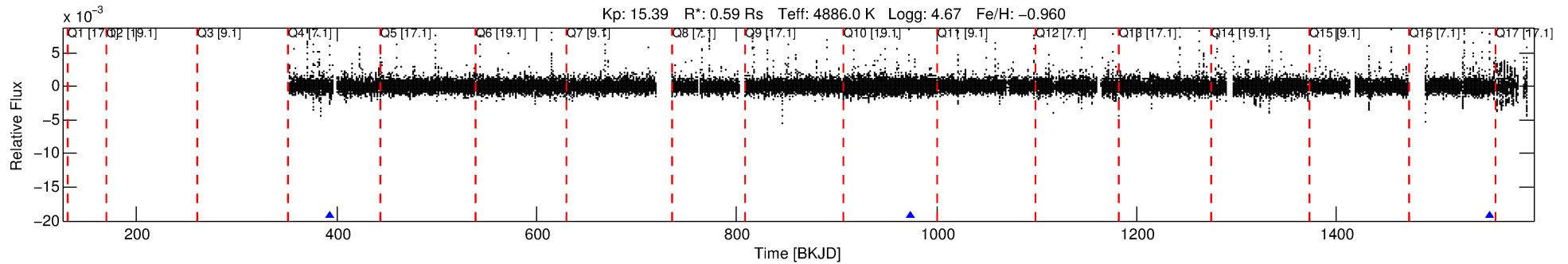
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011141029-02

No Significant Match Found

DV One-Page Summary

KIC: 11141029 Candidate: 2 of 7 Period: 579.545 d



DV Fit Results:

Period = 579.54496 [0.00522] d
Epoch = 393.6289 [0.0070] BKJD
Rp/R* = 0.0426 [0.0635]
a/R* = 1019.94 [5701.45]
b = 0.47 [9.23]
Seff = 0.14 [0.02]
Teq = 155 [7] K
Rp = 2.73 [4.08] Re
a = 1.1372 [0.0779] AU
Ag = 81400.02 [246614.96] [0.33] σ
Teffp = 4044 [3065] K [1.27] σ

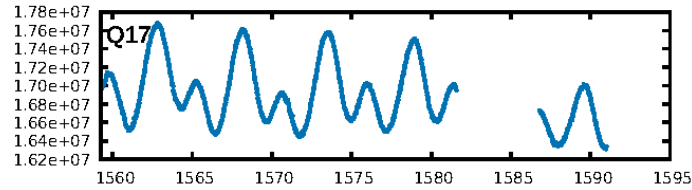
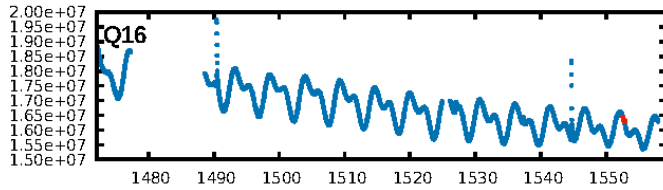
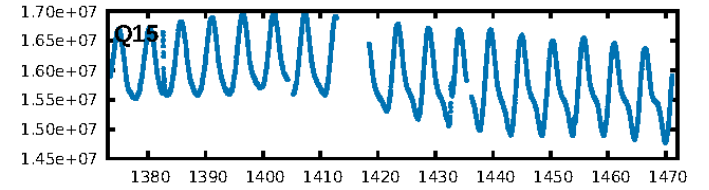
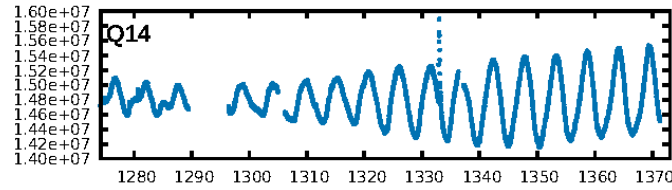
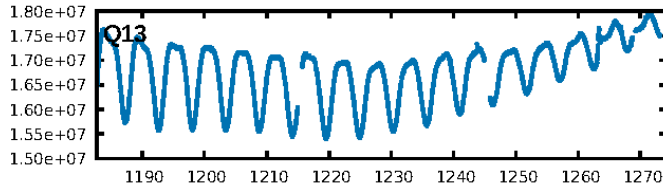
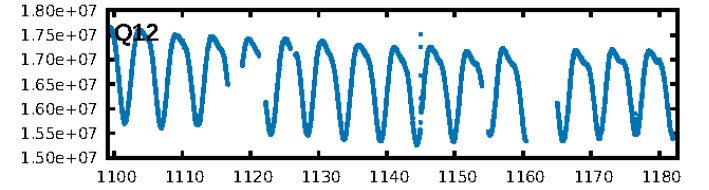
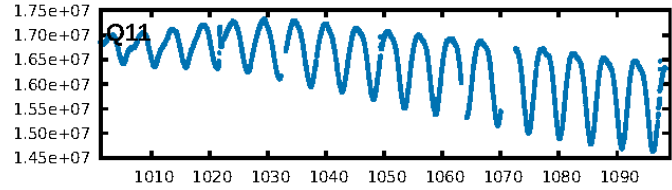
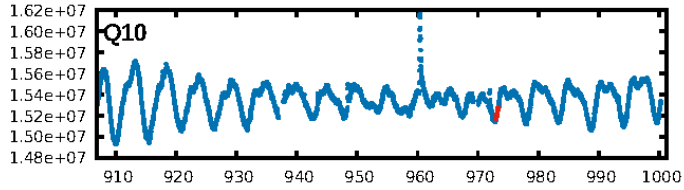
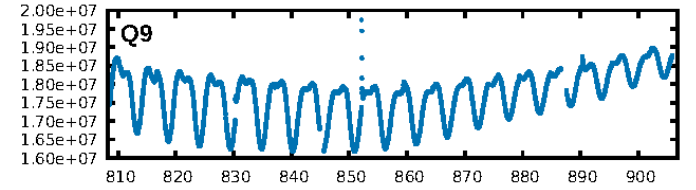
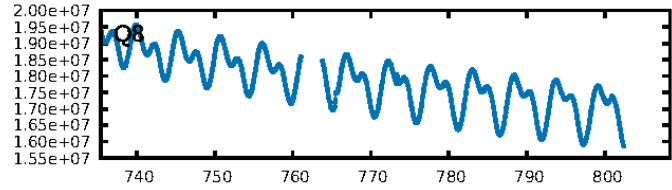
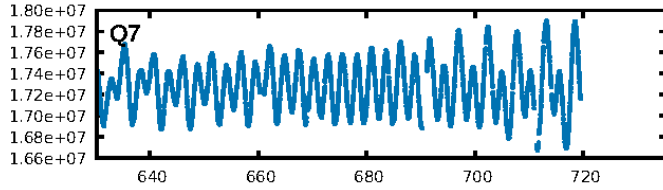
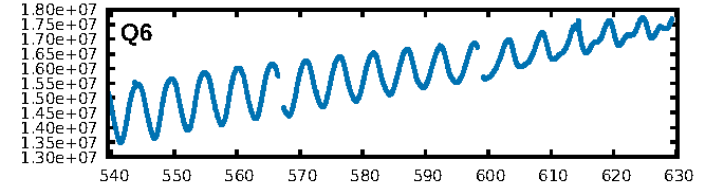
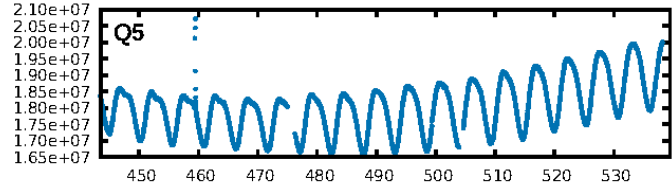
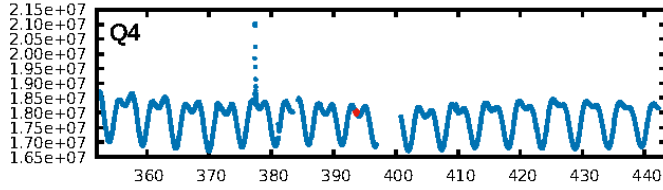
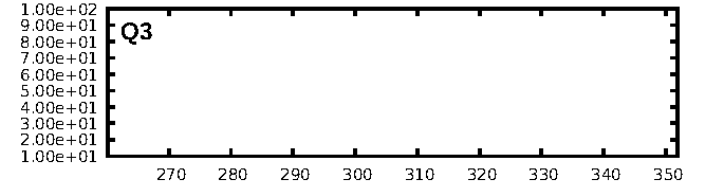
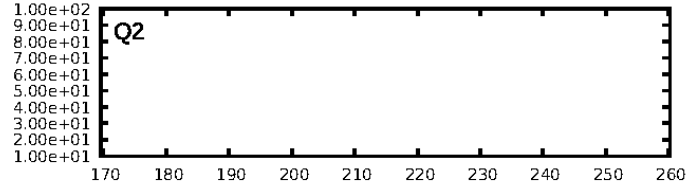
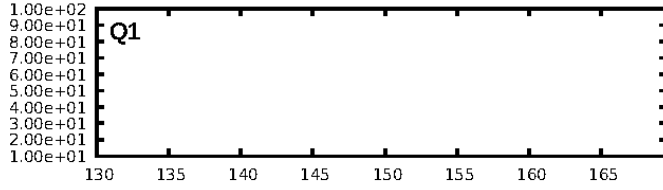
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [592.45] σ
LongPeriod-sig: 100.0% [9.18] σ
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 5.0%
Bootstrap-pfa: 8.65e-16
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 1.053
Centroid-sig: 0.9%
Centroid-so: 1.837 arcsec [1.66] σ
OotOffset-rm: 1.109 arcsec [6.06] σ
KicOffset-rm: 0.138 arcsec [0.30] σ
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 1/0/1/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

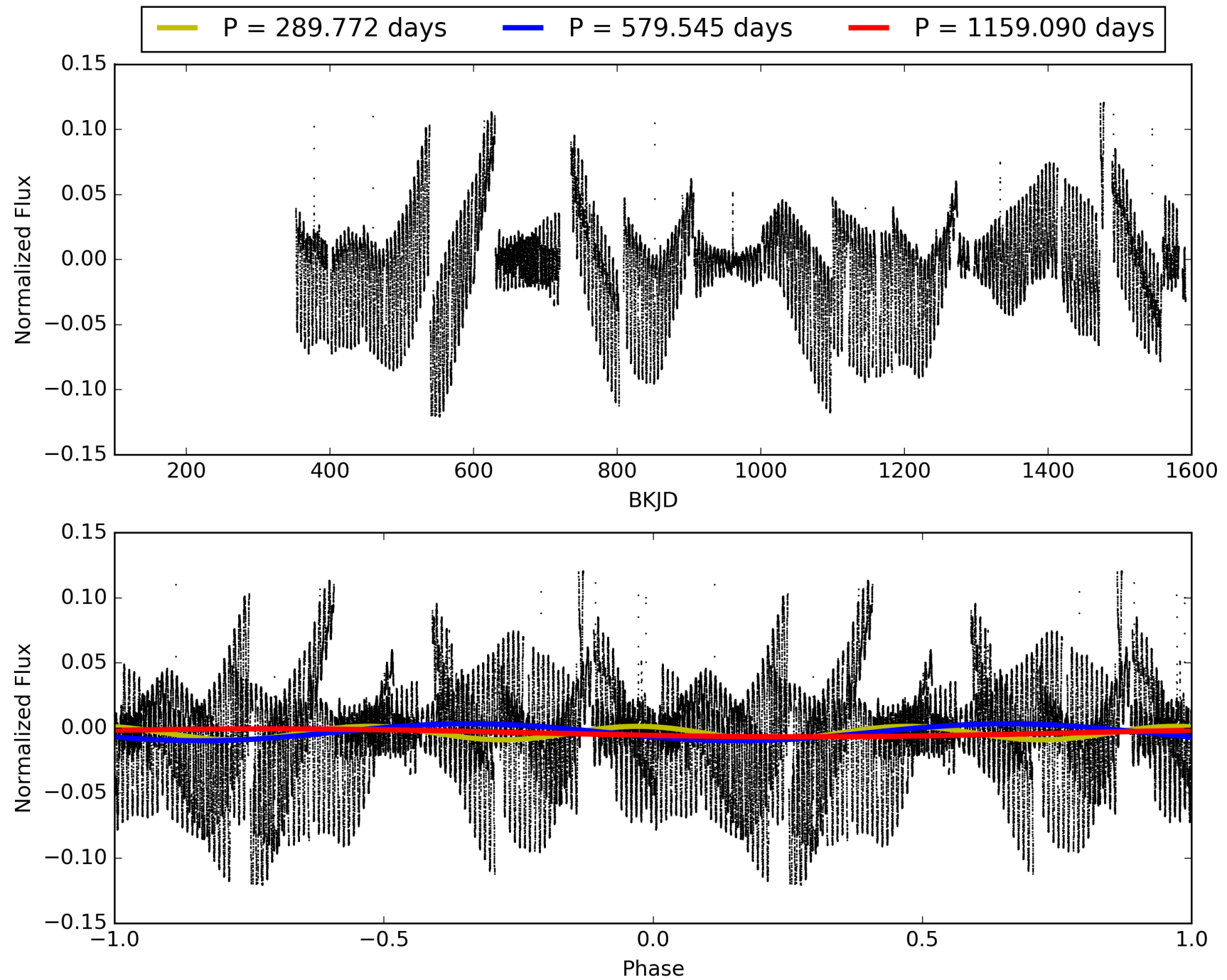
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:41:30 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 011141029-02, PDC Light Curves

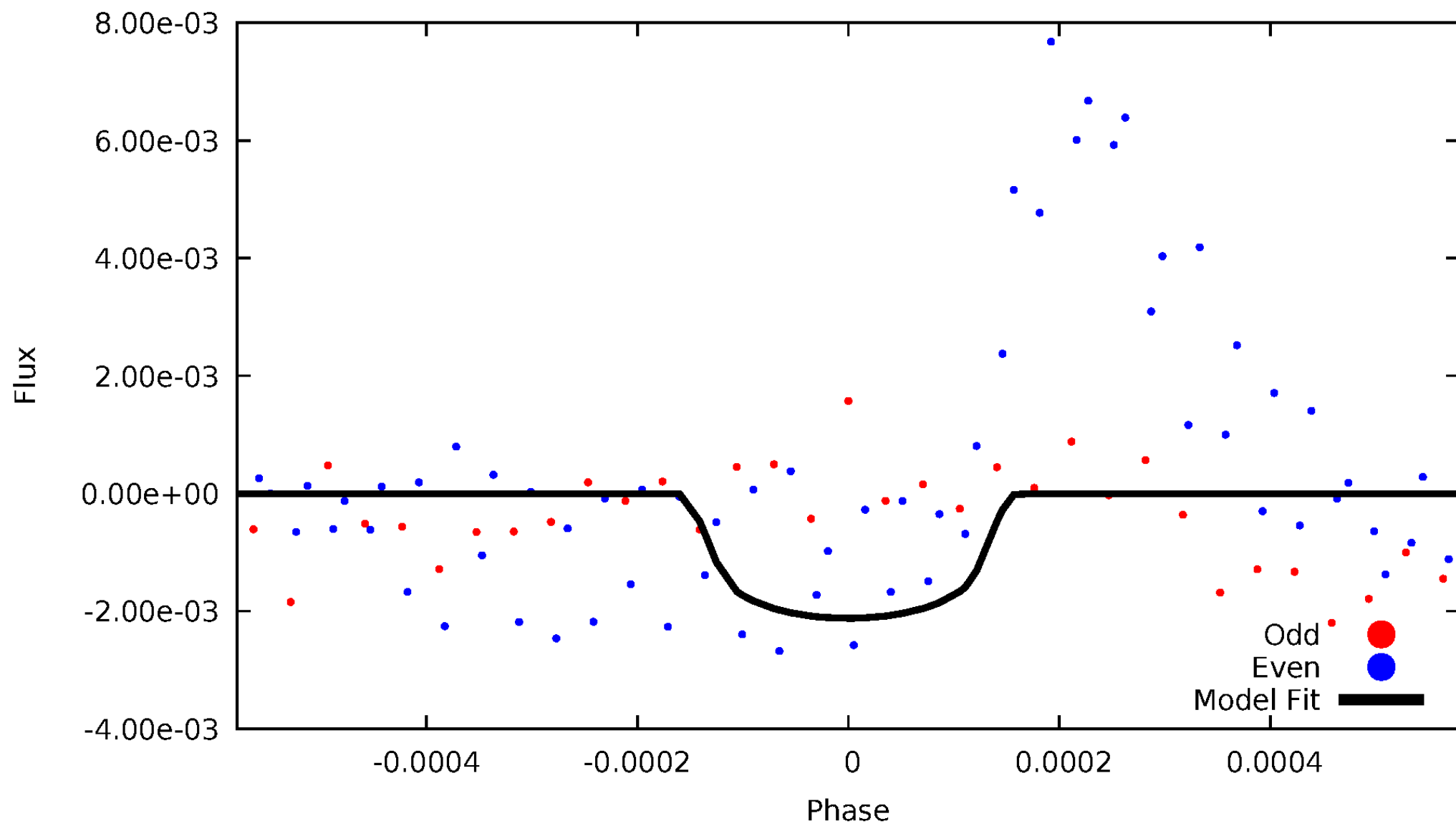


TCE 011141029-02



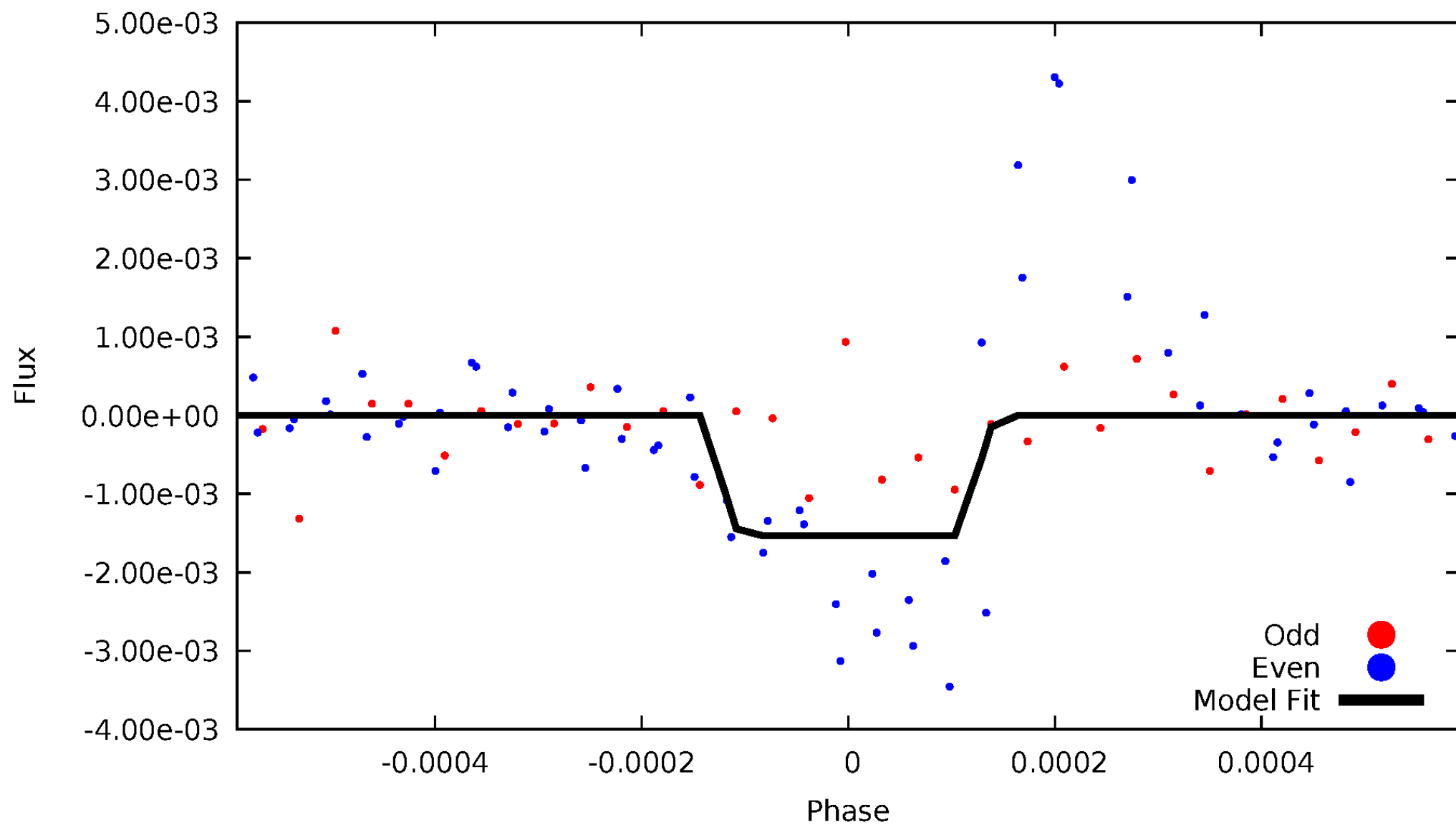
DV Odd/Even

TCE 011141029-02



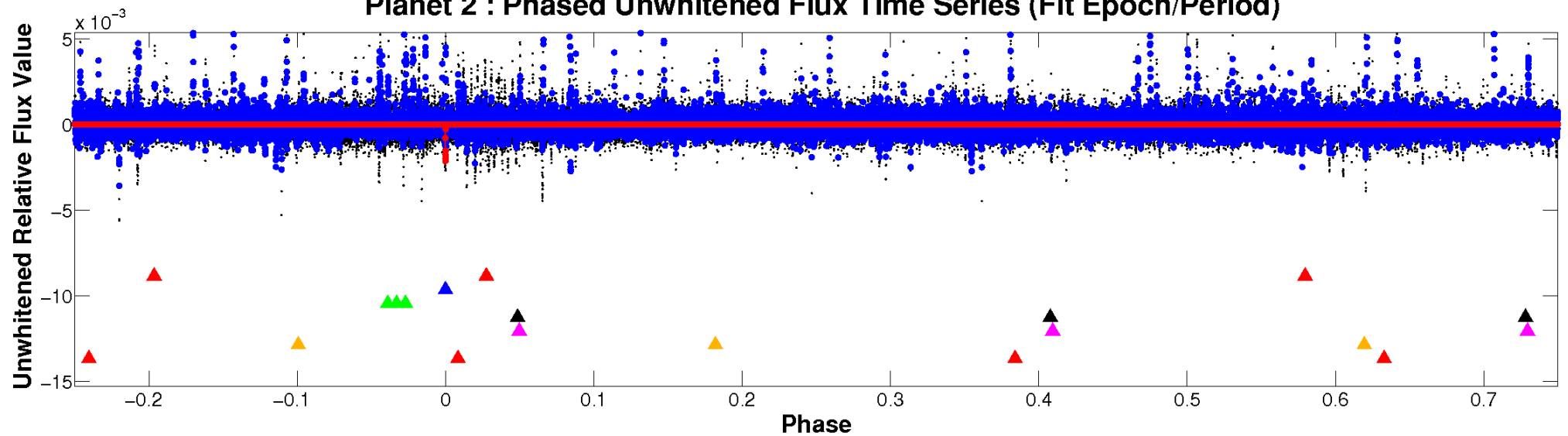
ALT Odd/Even

TCE 011141029-02

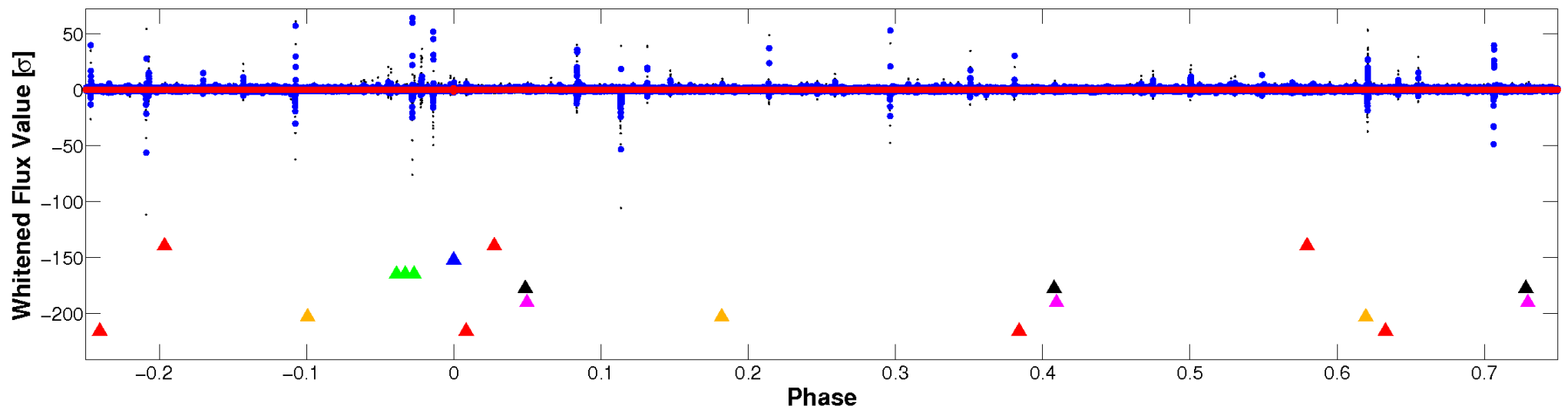


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

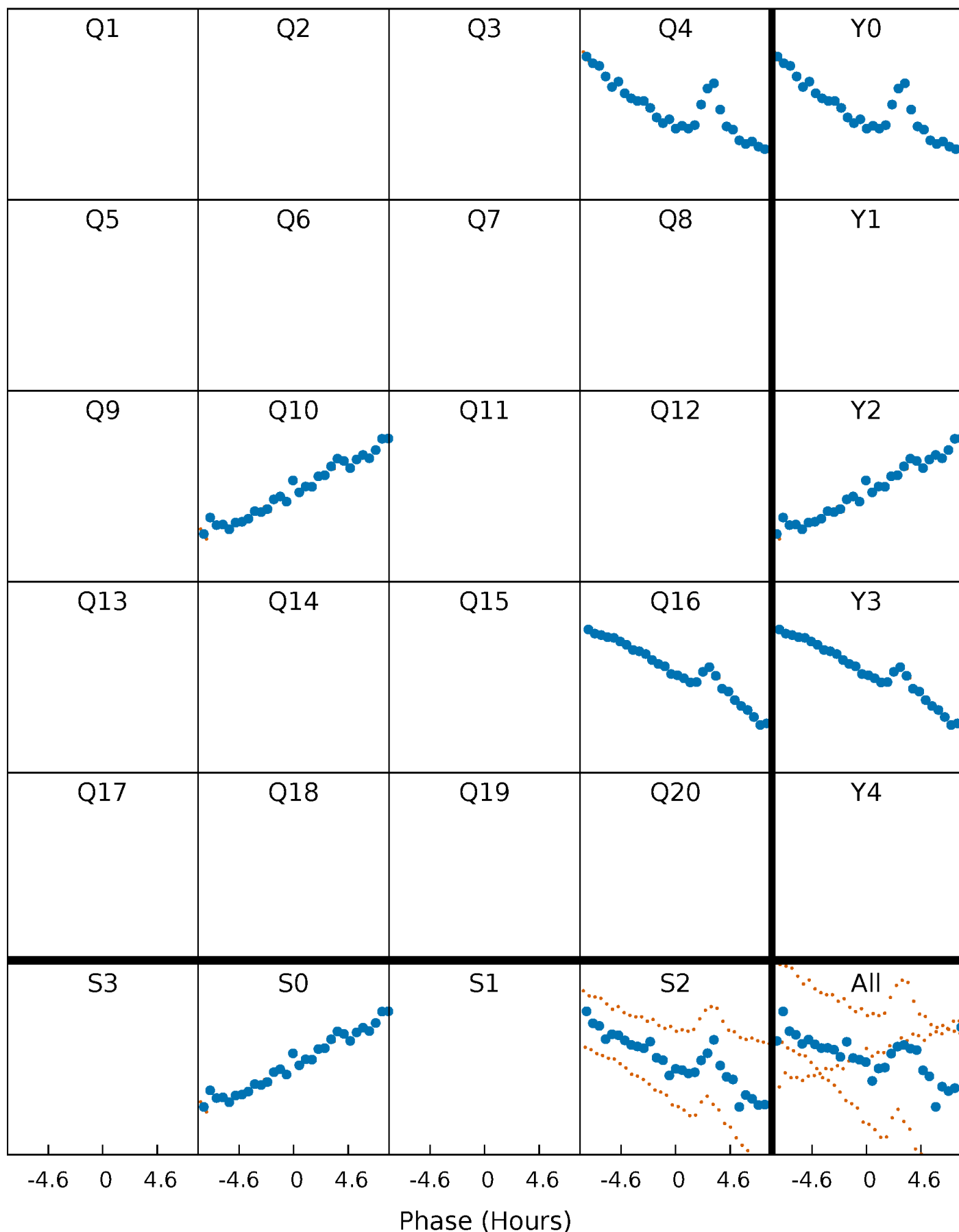


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



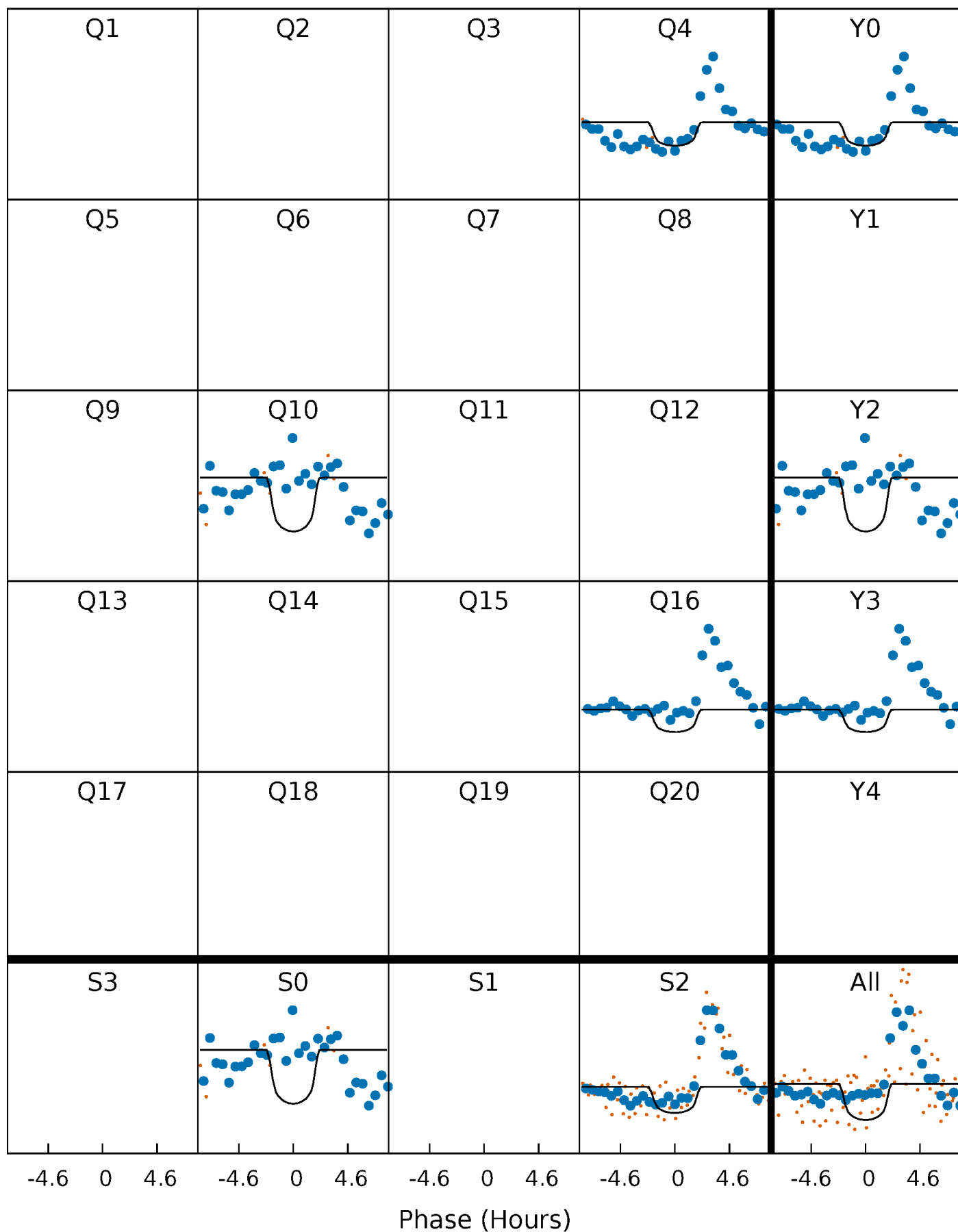
PDC Quarter-Phased Transit Curves

TCE 011141029-02 P=579.544957 Days $T_0=393.628891$ (BKJD)



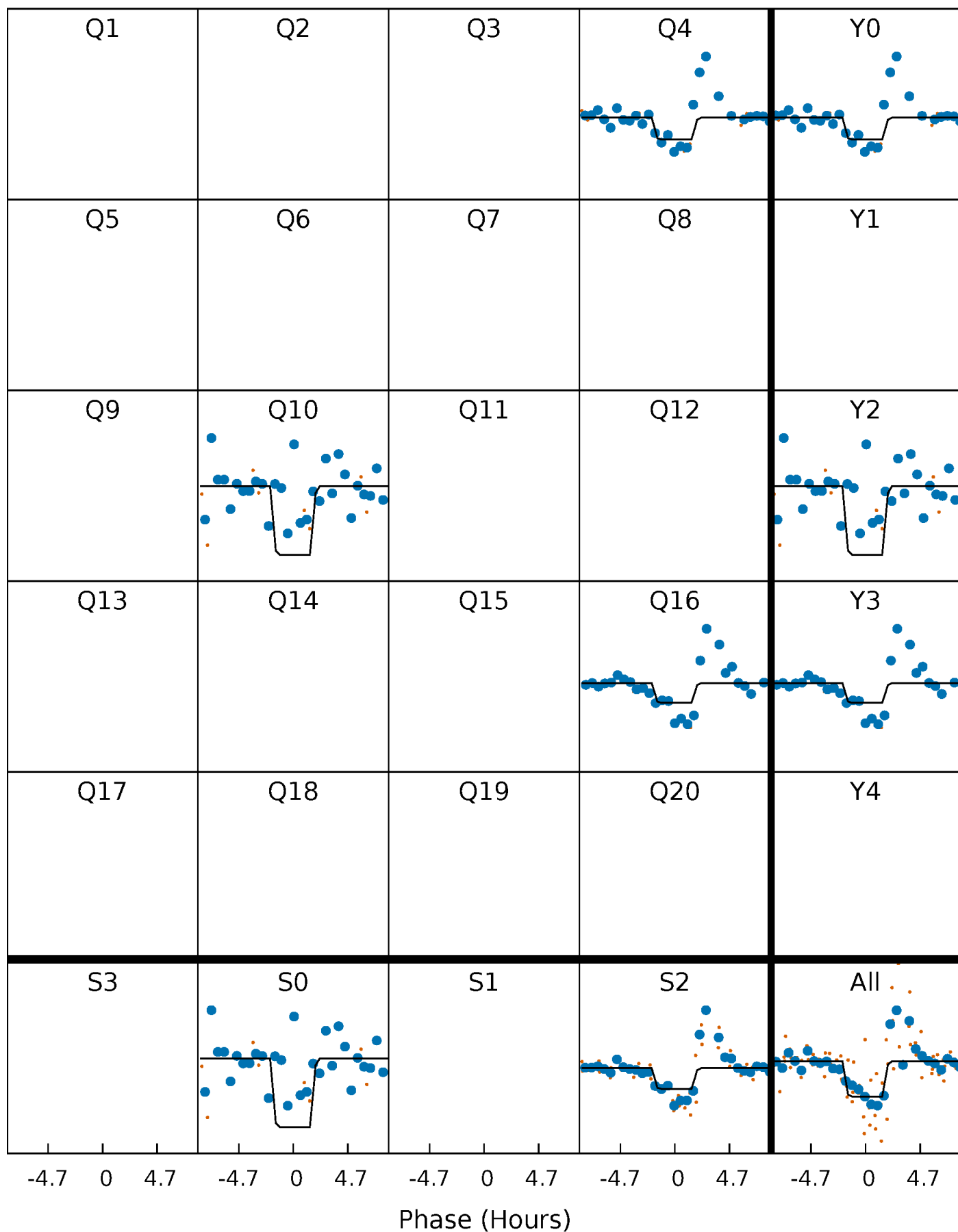
DV Quarter-Phased Transit Curves

TCE 011141029-02 P=579.544957 Days $T_0=393.628891$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

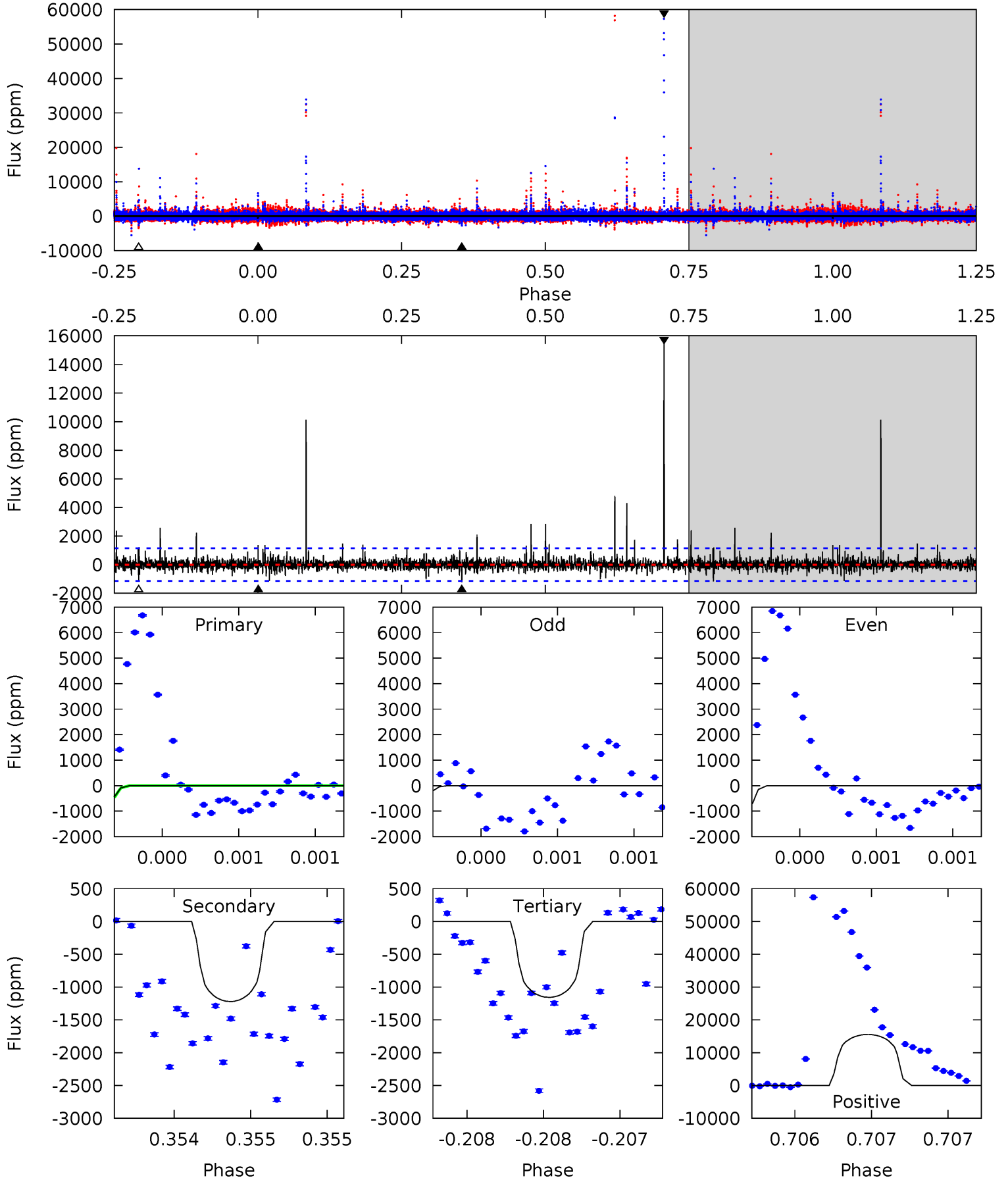
TCE 011141029-02 P=579.536629 Days $T_0=393.638793$ (BKJD)



DV Model-Shift Uniqueness Test

011141029-02, P = 579.544957 Days, E = 393.628891 Days

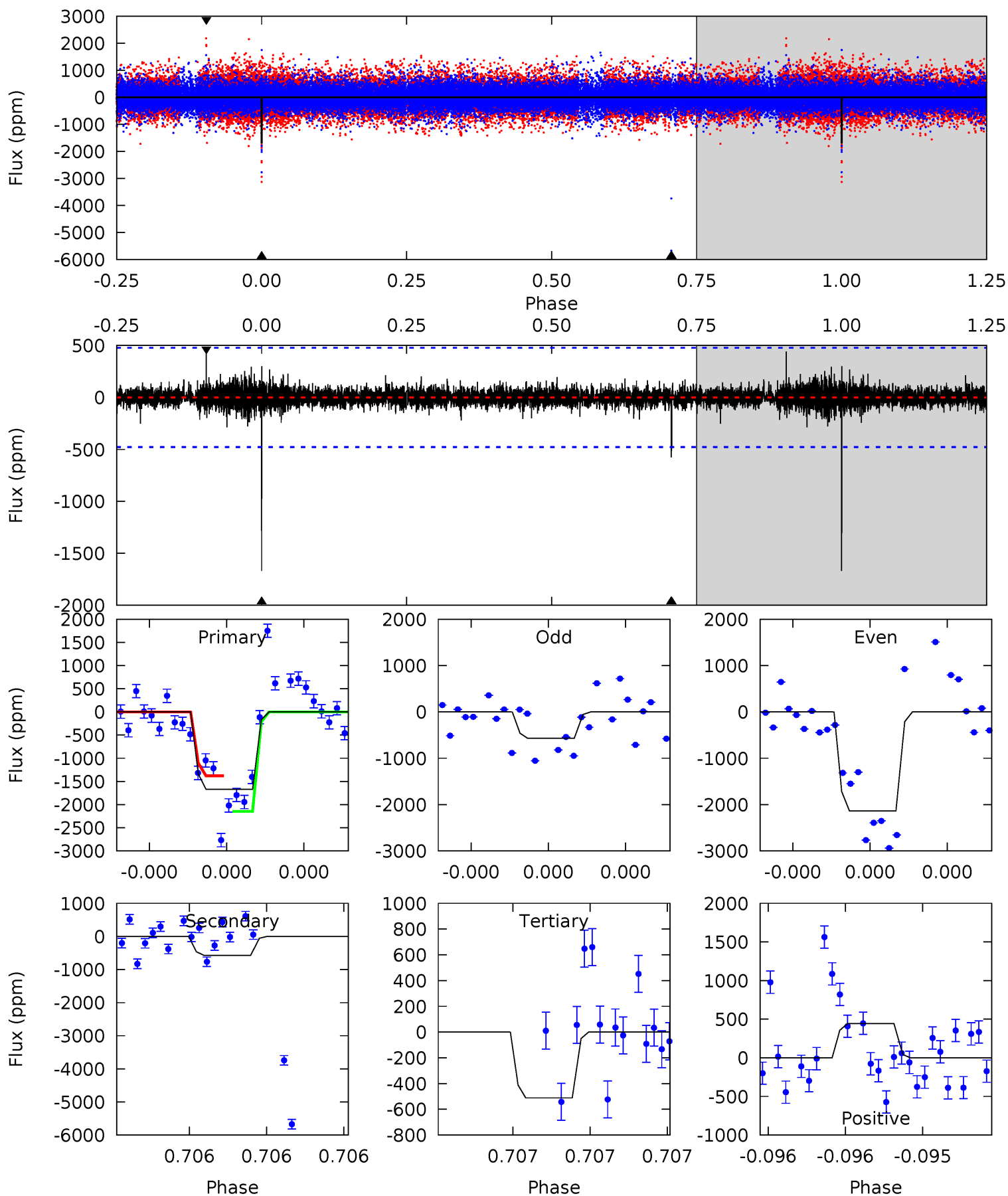
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.21	6.02	5.71	76.7	5.65	3.60	2.10	-2.50	-73.5	0.31	-70.7	1.14	3.94	0.93	0



Alt Model-Shift Uniqueness Test

011141029-02, P = 579.536629 Days, E = 393.638793 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.8	6.82	6.05	5.24	5.66	3.61	0.59	13.7	14.5	0.77	1.58	9.32	0.86	0.21	0



Stellar Parameters For KIC 011141029

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4886^{+175}_{-175}	$4.667^{+0.056}_{-0.036}$	$-0.960^{+0.300}_{-0.300}$	$0.587^{+0.047}_{-0.042}$	$0.584^{+0.055}_{-0.025}$	$4.064^{+0.916}_{-0.559}$
	+4%/-4%	+1%/-1%	+31%/-31%	+8%/-7%	+9%/-4%	+23%/-14%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011141029-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1221 ± 203	$4.05^{+3.56}_{-2.45}$	215^{+9}_{-8}	3895^{+1722}_{-719}	$51985^{+277364}_{-36873}$
Alt.	-576 ± 84	$3.86^{+3.54}_{-2.46}$	215^{+8}_{-9}	3476^{+1732}_{-615}	$27352^{+197782}_{-20039}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

DV Centroid Data

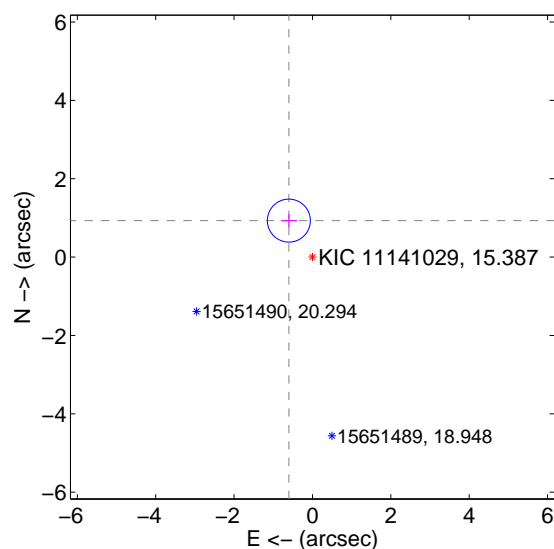
Supplemental centroid analysis for 011141029-02. Kepler magnitude: 15.39. Transit SNR 8.68

There are 1 quarters with good PRF difference image offsets

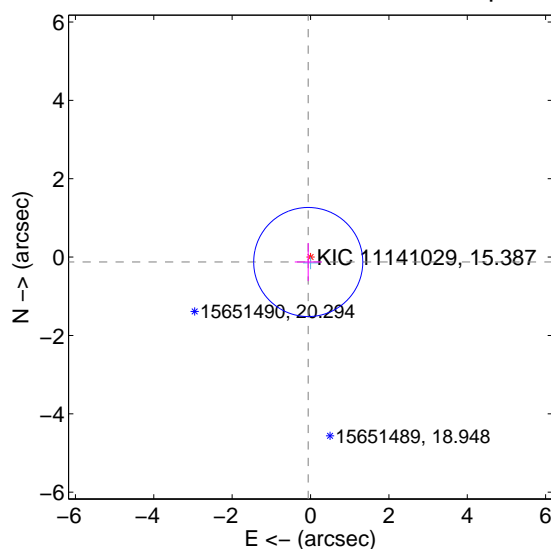
The direct PRF centroid is offset from the target star catalog position by about 1.24 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.109 \pm 0.183	6.06	0.602 \pm 0.205	0.931 \pm 0.173
PRF-fit source offset from KIC position	0.138 \pm 0.464	0.30	0.058 \pm 0.344	-0.125 \pm 0.486
photometric centroid source offset	1.84 \pm 1.10	1.66	-0.89 \pm 0.86	-1.61 \pm 1.17

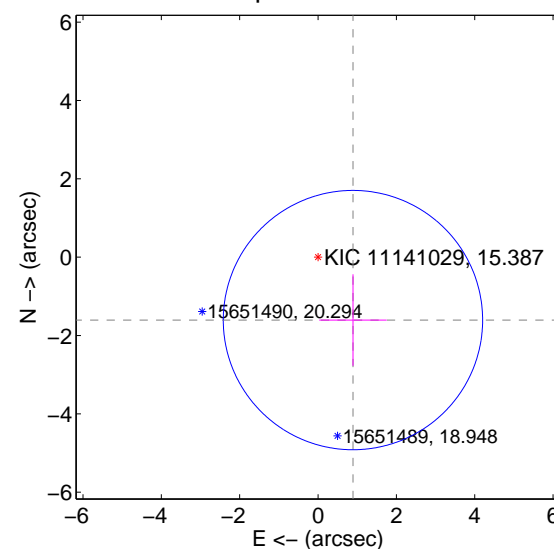
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

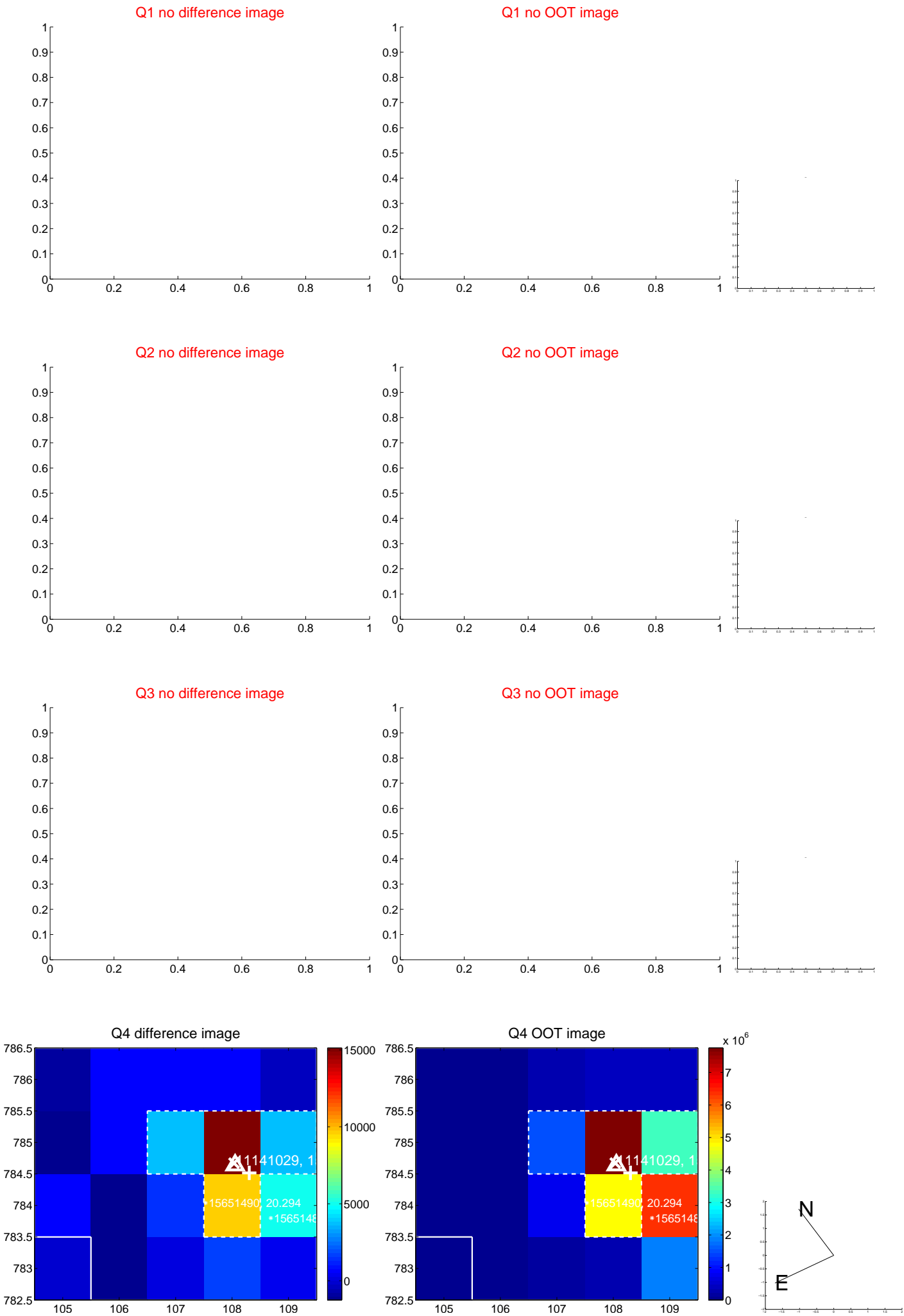


offset from photometric centroids

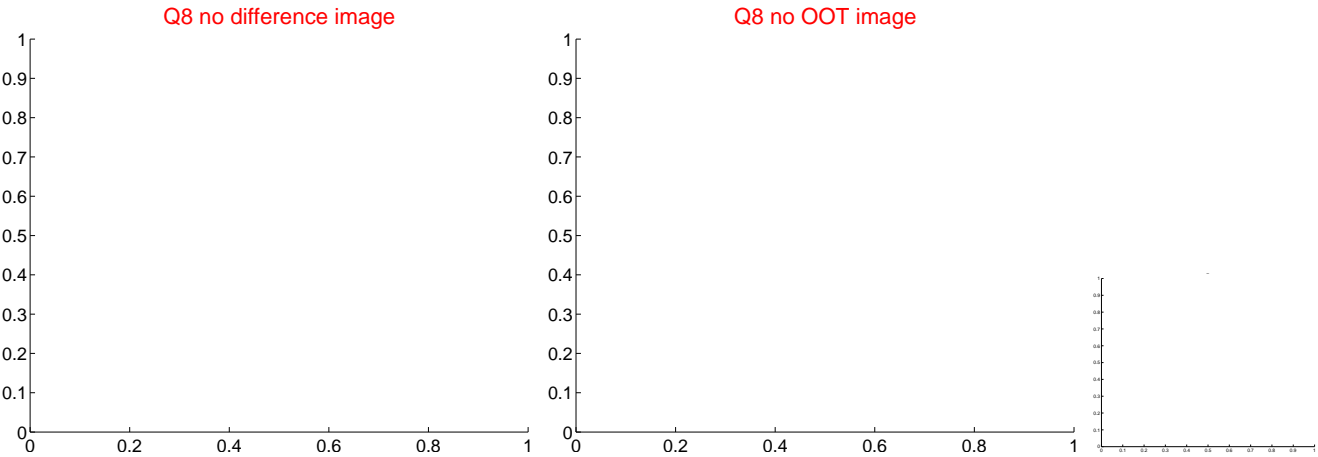
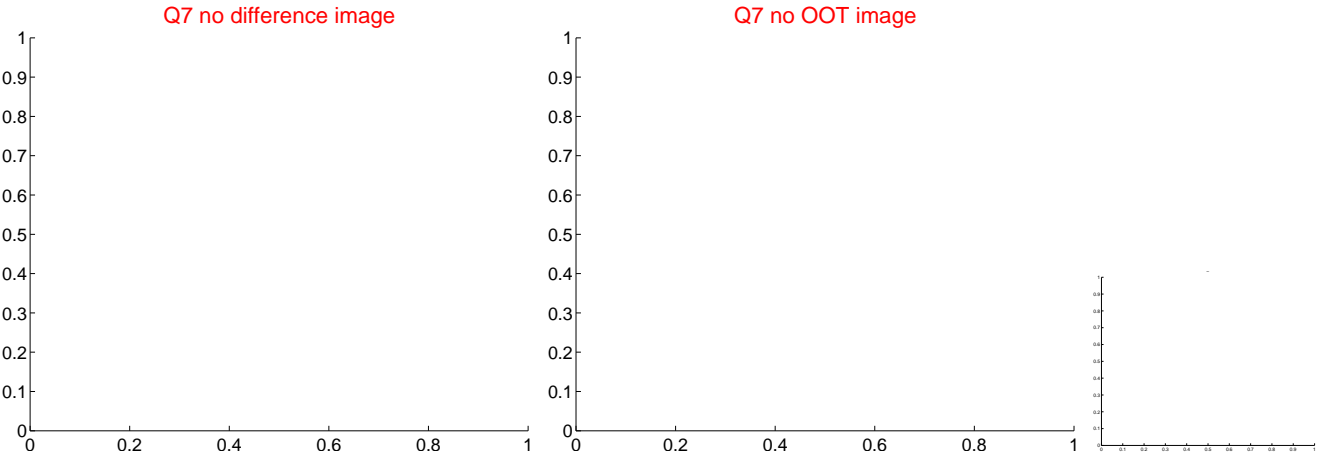
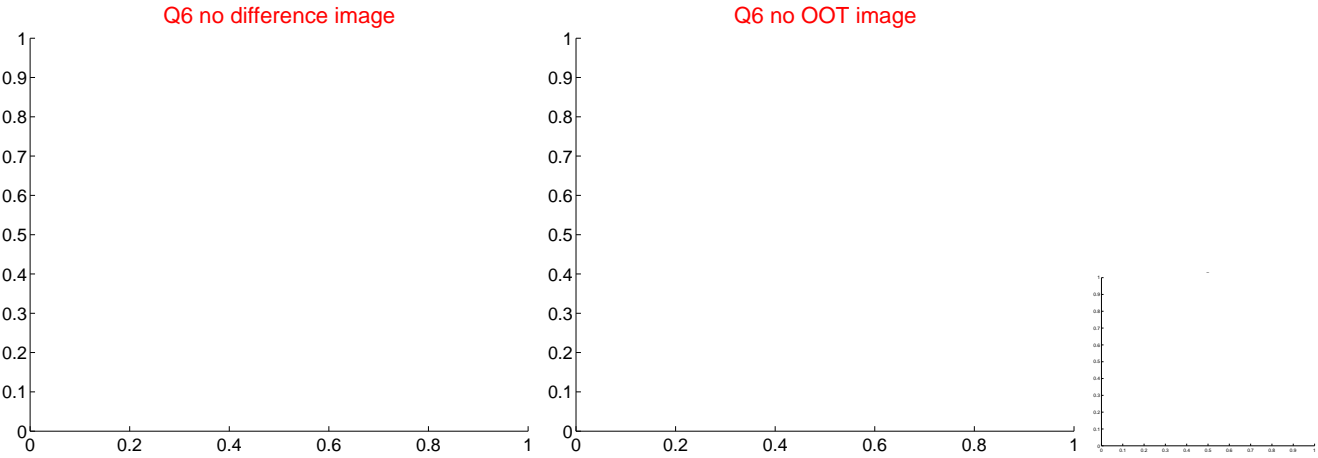
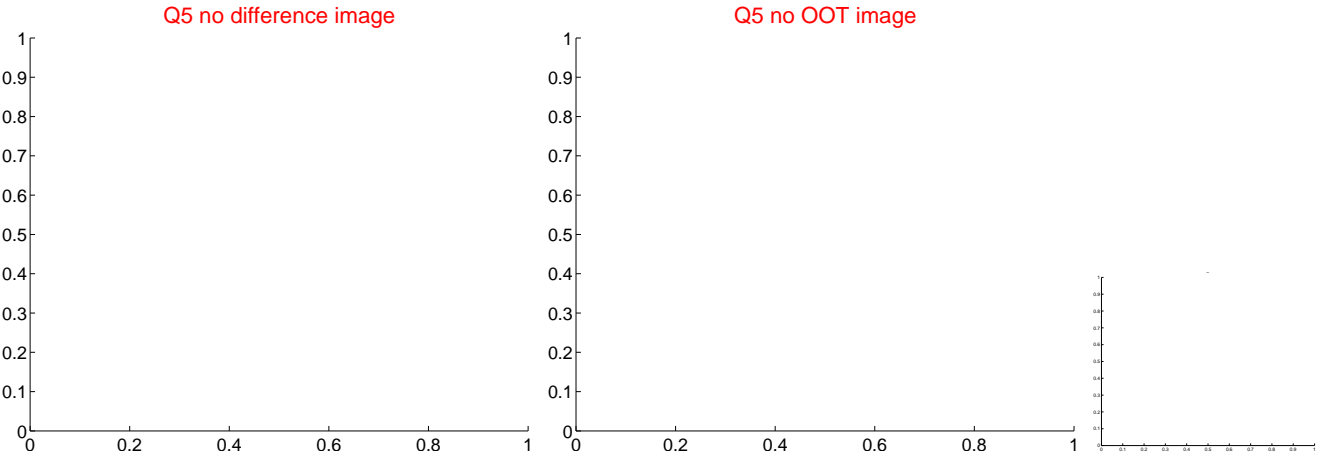


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

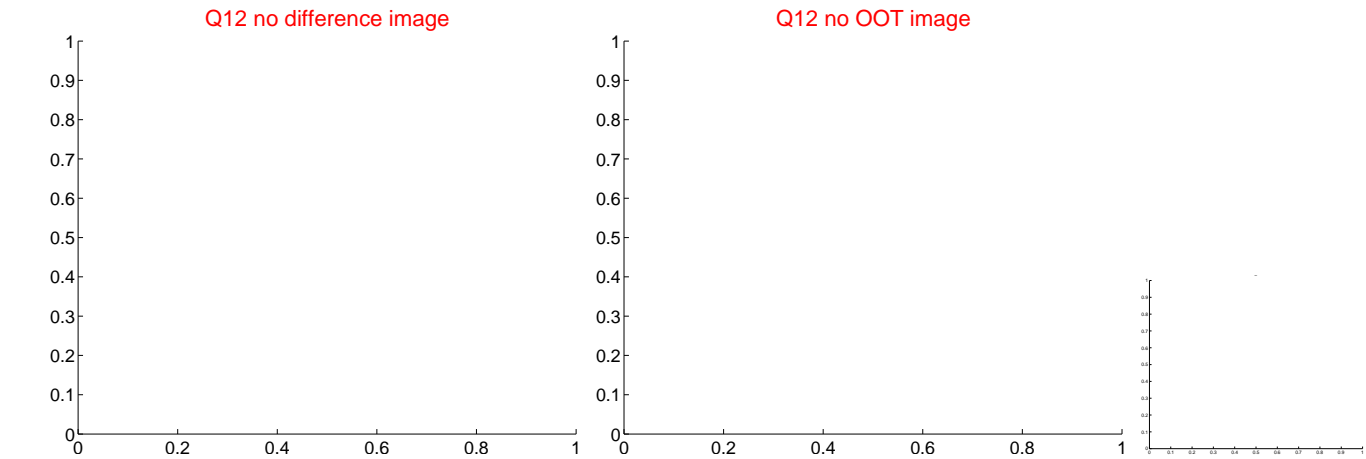
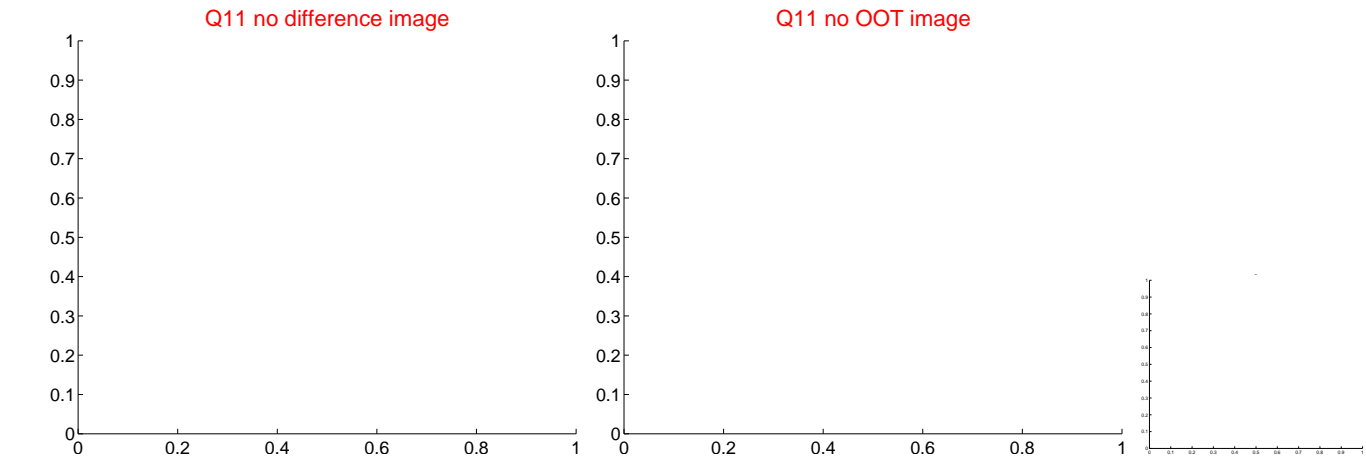
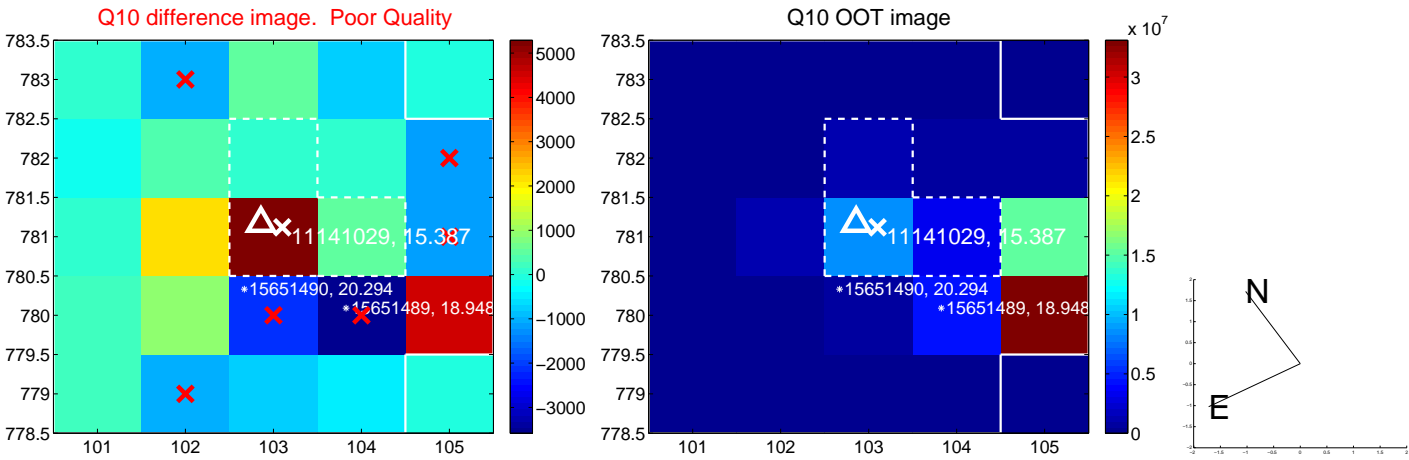
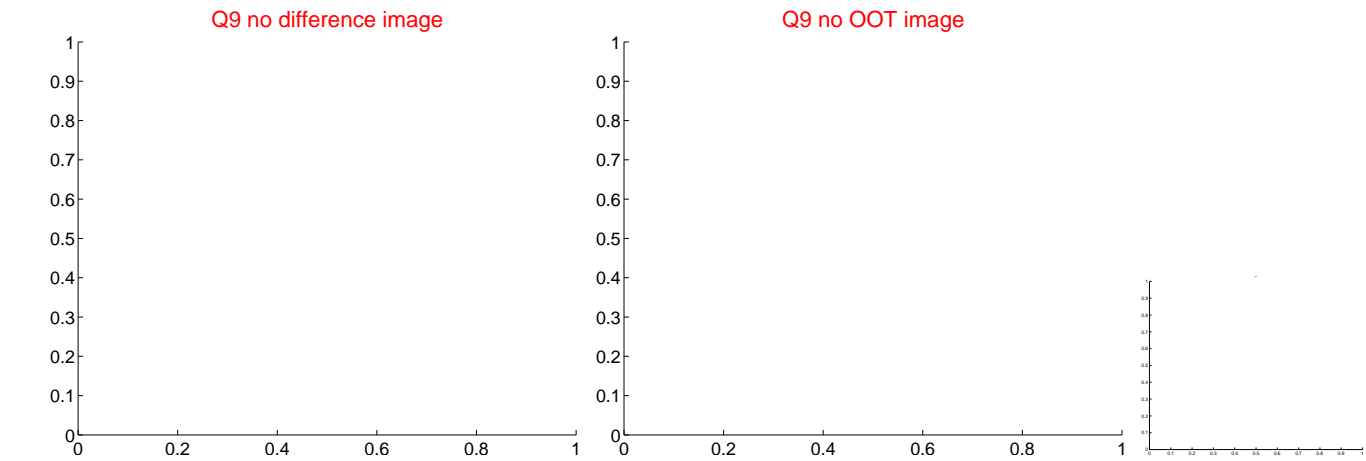
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



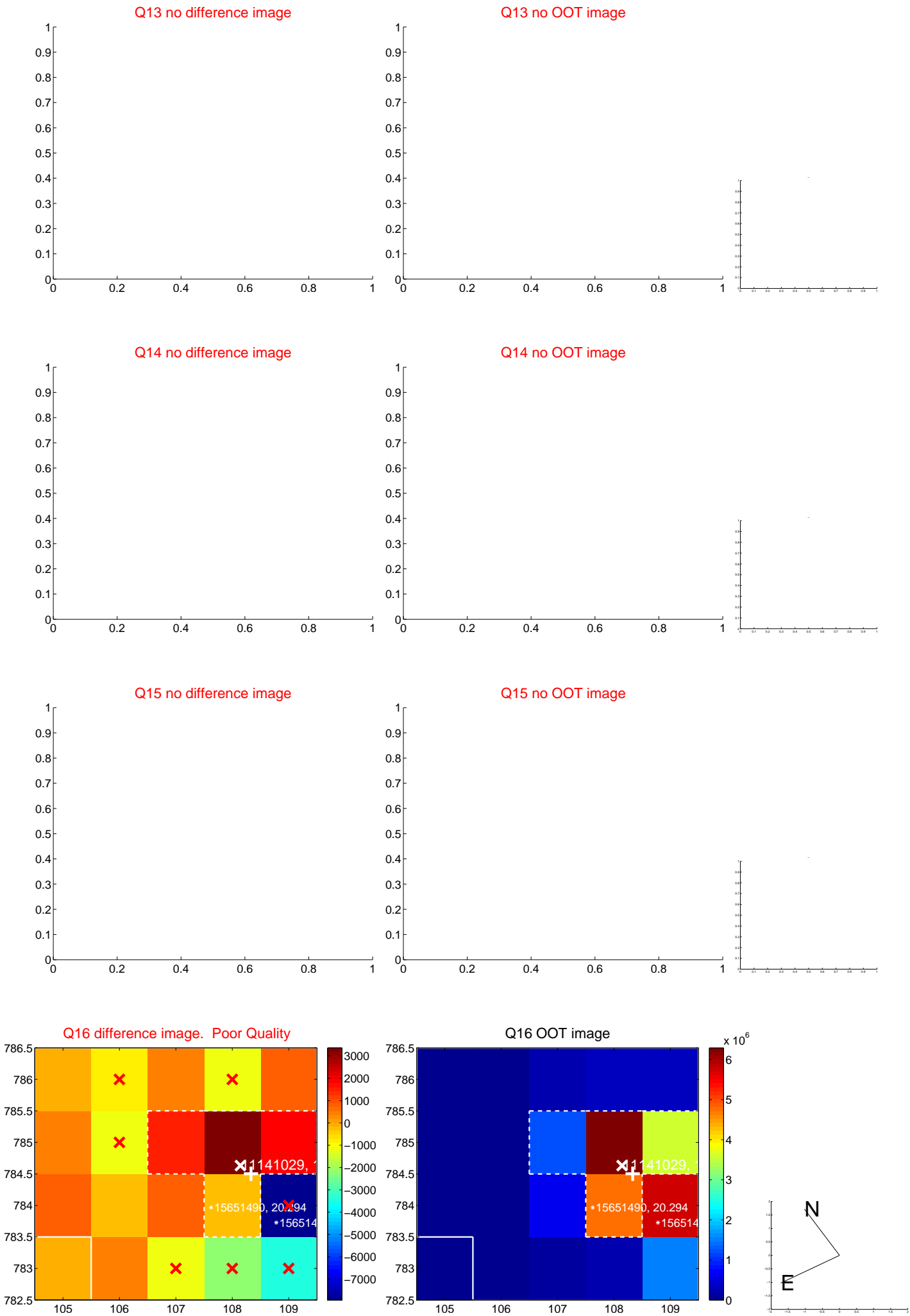
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



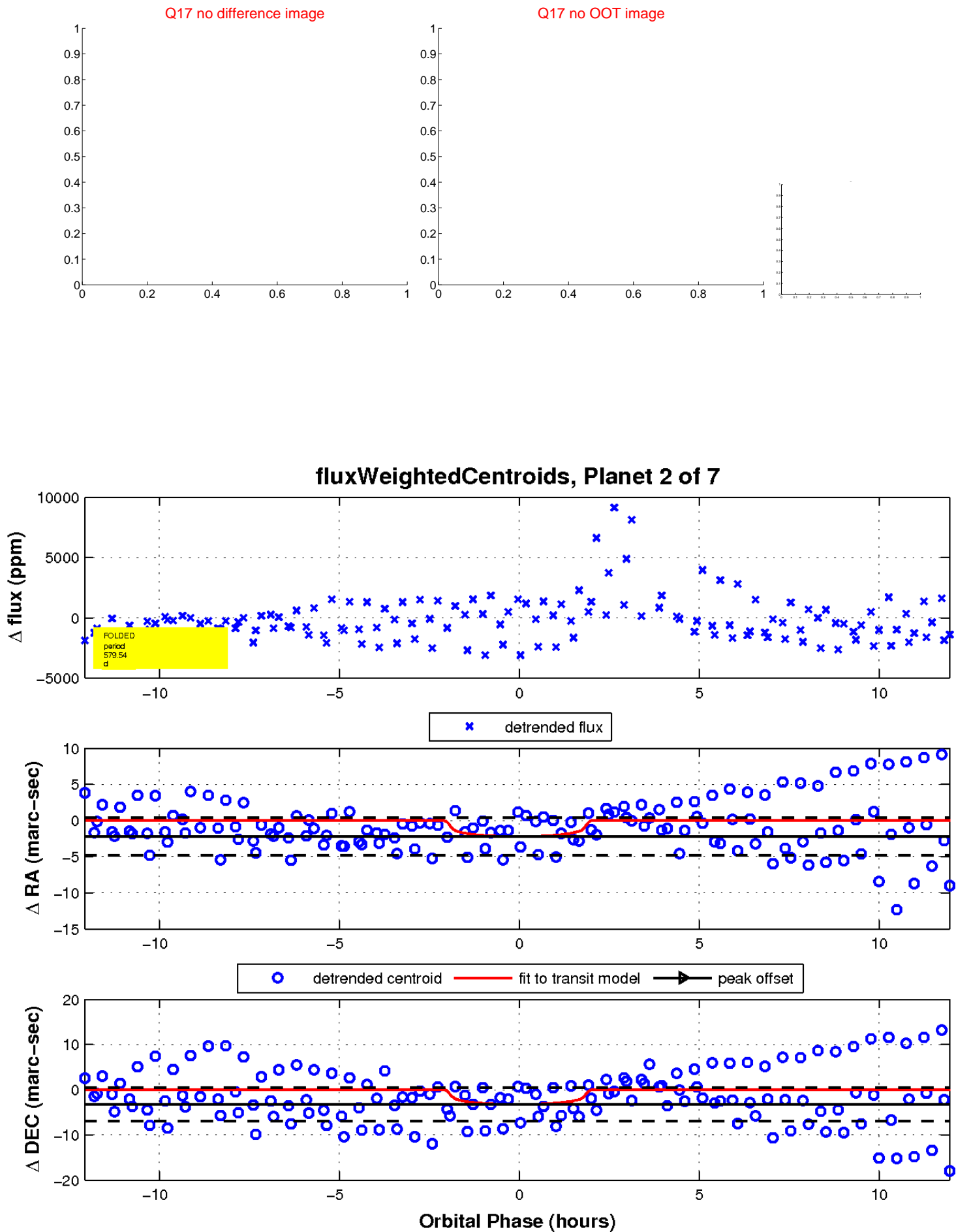
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

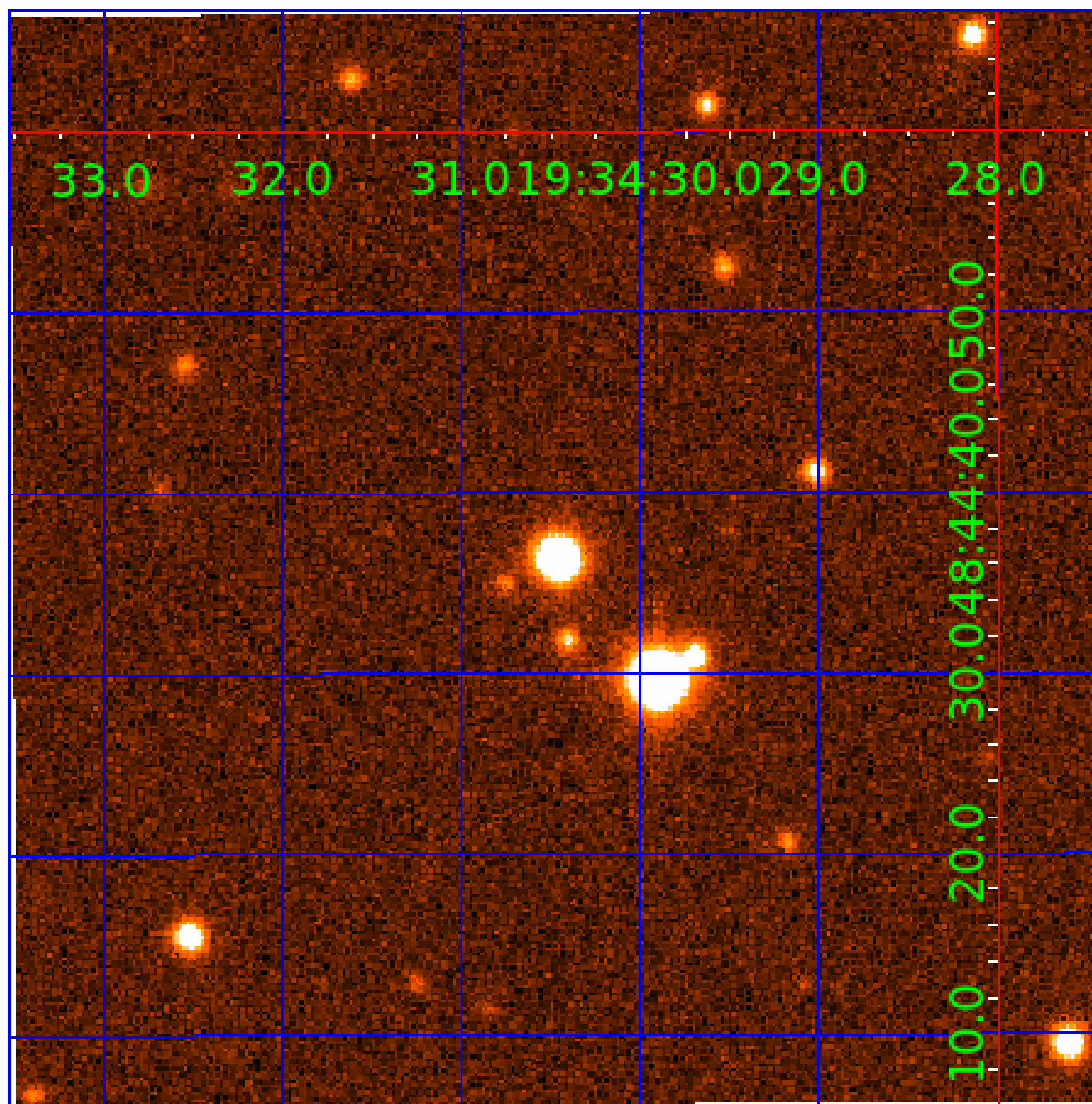


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011141029

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
011141029-01	OBS	No	449.750067	409.590244	1874.7	3.377	18.3	7.6	0.59	4886	2.51	0.19
011141029-02	OBS	No	579.544957	393.628891	2121.8	4.030	15.5	8.7	0.59	4886	2.73	0.14
011141029-03	OBS	No	583.002322	371.101637	3078.2	8.087	16.8	7.9	0.59	4886	6.27	0.14
011141029-04	OBS	No	393.856592	421.807037	515.0	5.861	15.0	2.3	0.59	4886	1.46	0.23
011141029-05	OBS	No	393.986282	422.464455	1256.0	10.500	14.7	-1.0	0.59	4886	2.04	0.23
011141029-06	OBS	No	416.555121	499.098582	2995.0	12.590	13.5	8.5	0.59	4886	3.23	0.21
011141029-07	OBS	No	361.888147	254.296784	1568.4	3.065	10.3	6.5	0.59	4886	2.39	0.26

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011141029-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011141029-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011141029-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011141029-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011141029-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—SAME_NTL_PERIOD—CENT_NOFITS
011141029-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_KIC_POS
011141029-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

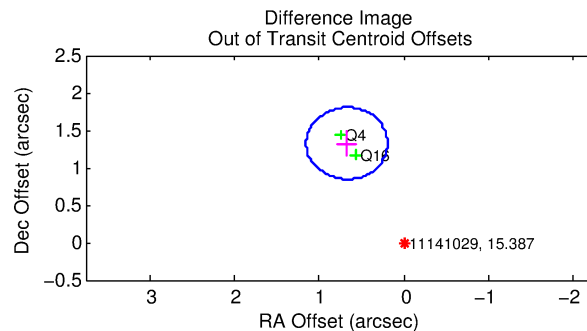
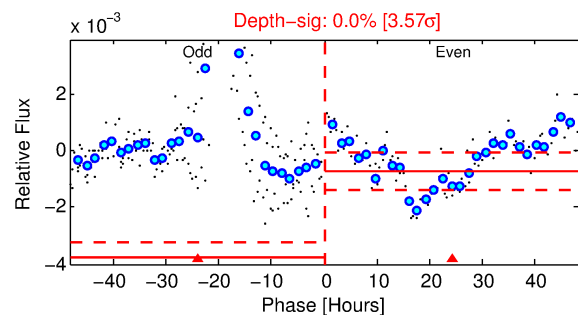
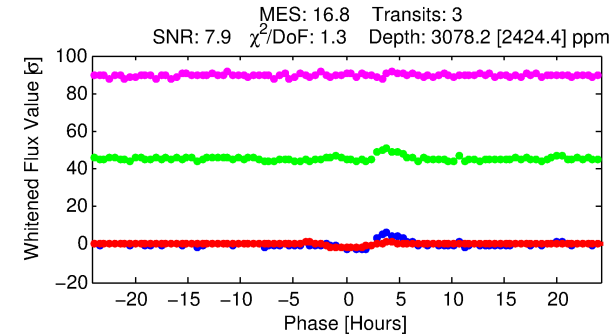
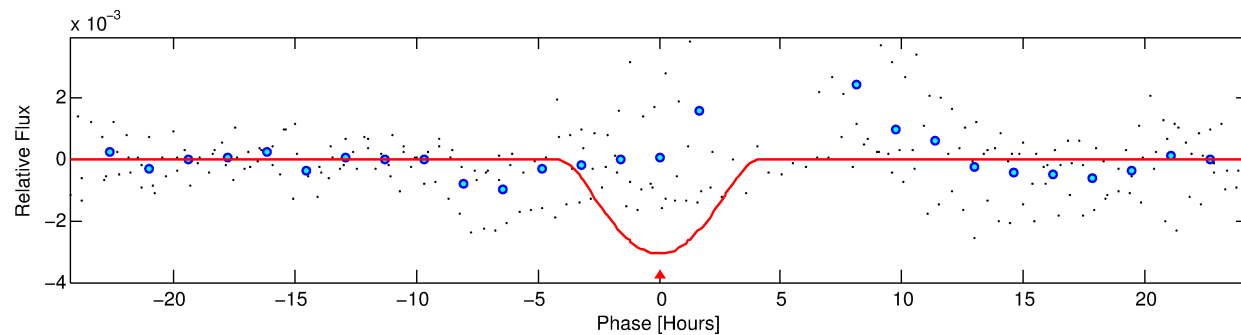
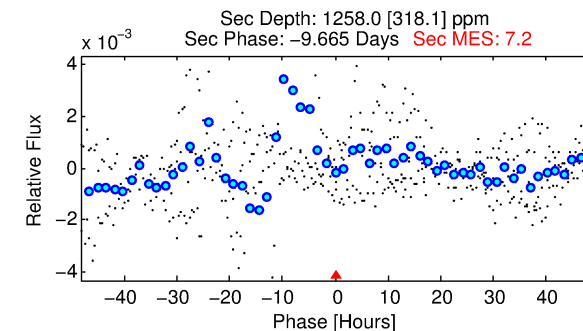
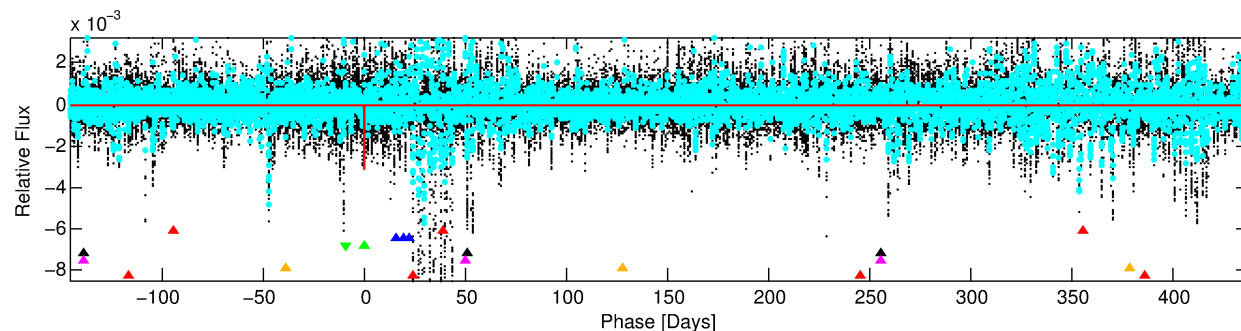
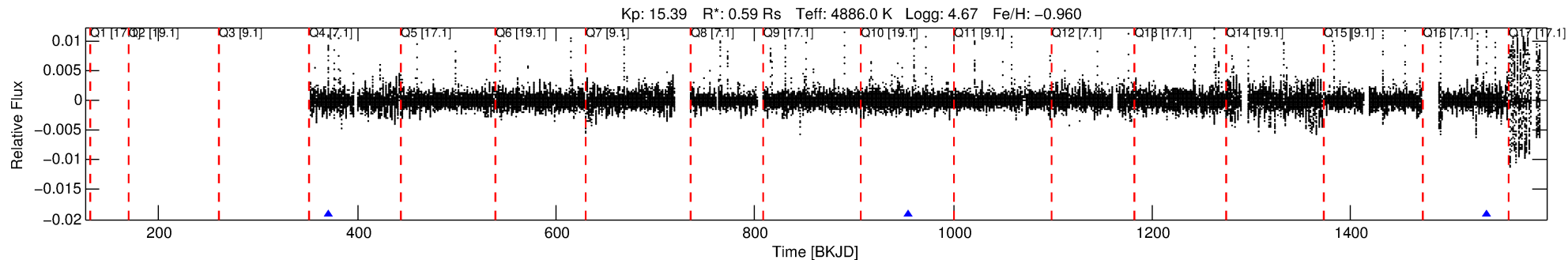
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011141029-03

No Significant Match Found

DV One-Page Summary

KIC: 11141029 Candidate: 3 of 7 Period: 583.002 d



DV Fit Results:

Period = 583.00232 [0.01083] d
Epoch = 371.1016 [0.0145] BKJD
Rp/R* = 0.0979 [0.2509]
a/R* = 249.66 [122.64]
b = 1.00 [0.40]
Seff = 0.13 [0.02]
Teq = 155 [7] K
Rp = 6.27 [16.08] Re
a = 1.1417 [0.0782] AU
Ag = 22926.42 [117633.53] [0.19σ]
Teff = 2940 [3773] K [0.74σ]

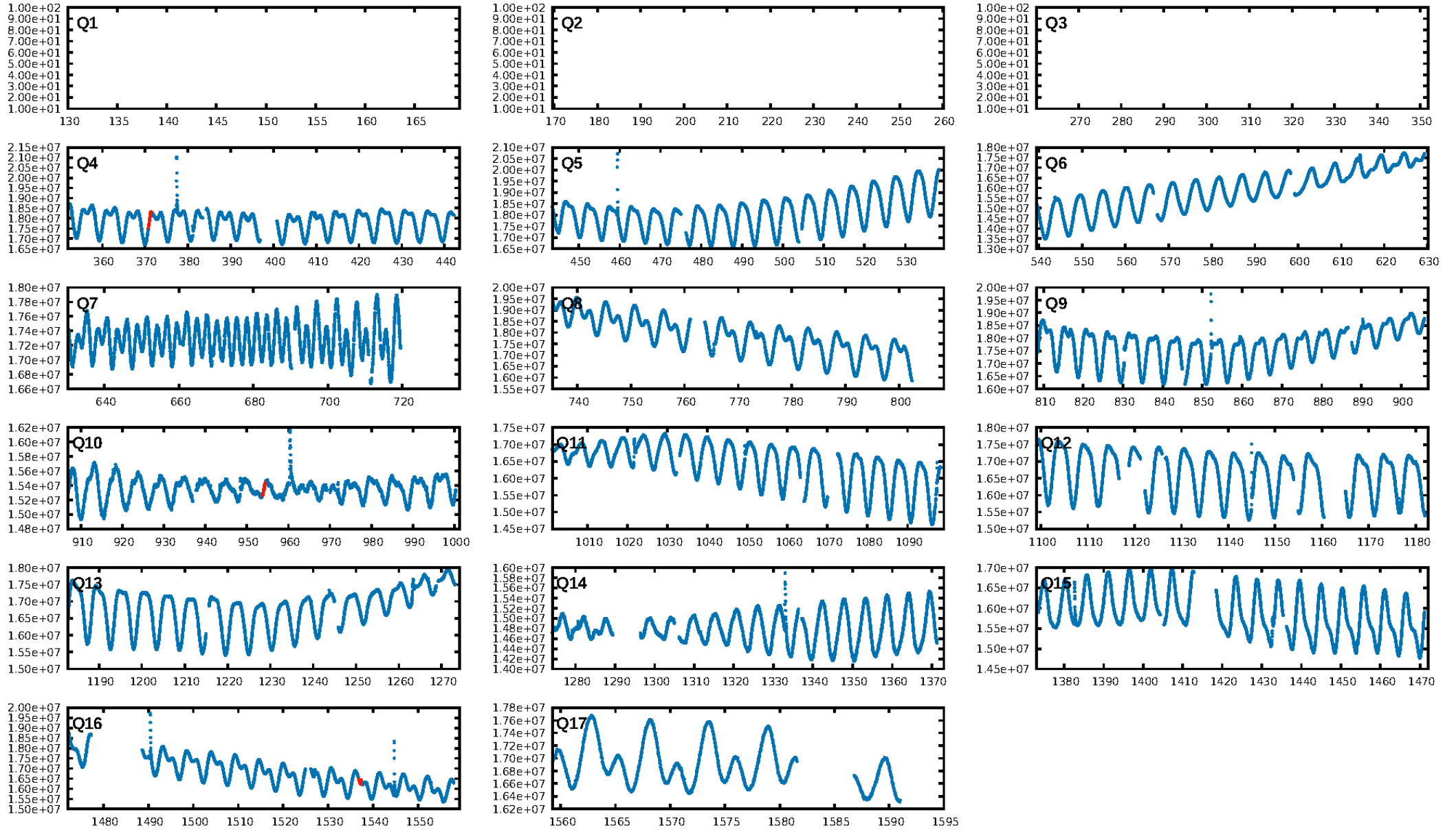
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [9.18σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 72.8%
Bootstrap-pfa: 1.28e-14
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.716
Centroid-sig: 12.0%
Centroid-so: 4.899 arcsec [4.31σ]
OotOffset-rm: 1.485 arcsec [9.30σ]
KicOffset-rm: 0.197 arcsec [1.26σ]
OotOffset-st: 0/0/2/0 [2]
KicOffset-st: 1/0/2/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

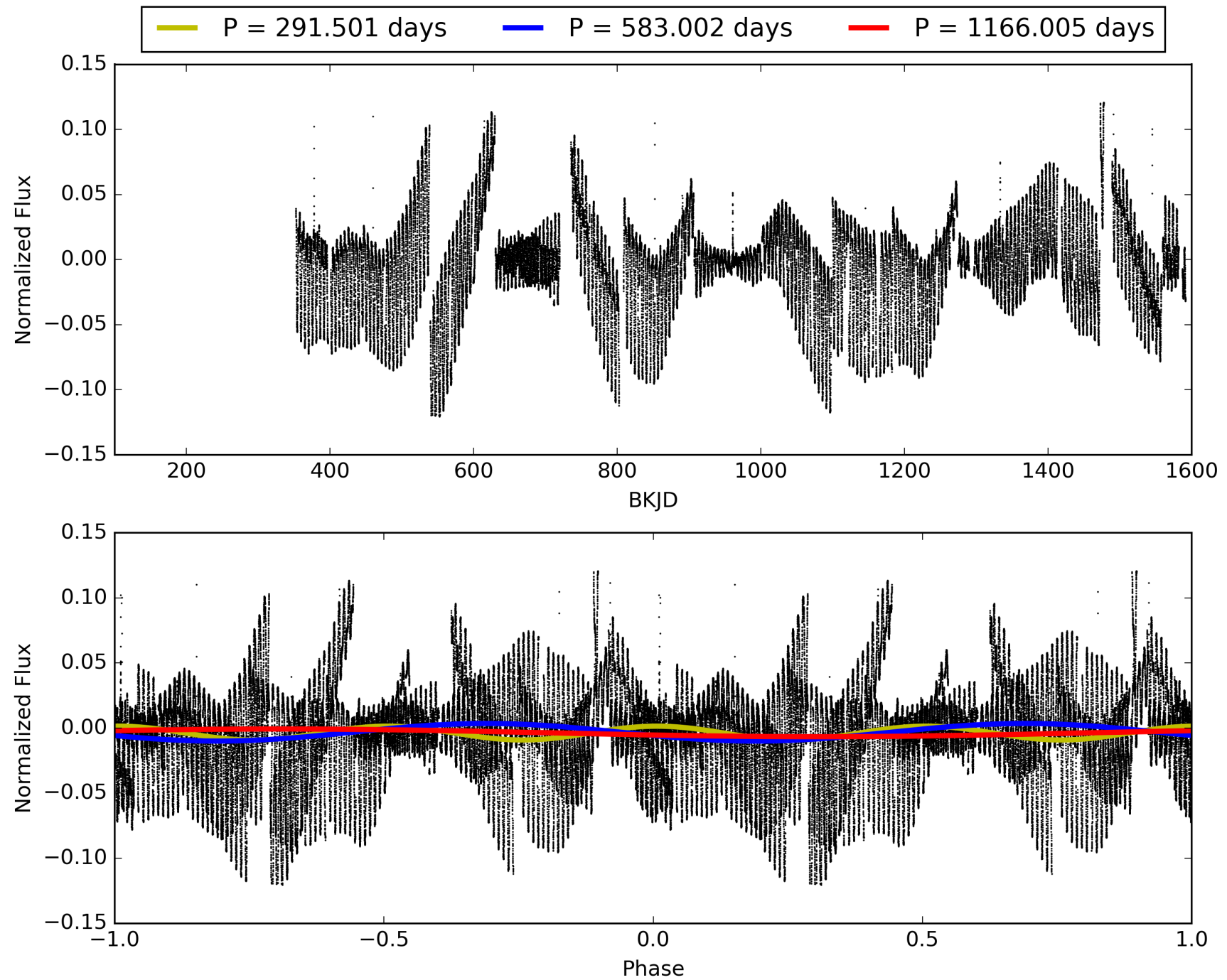
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:41:42 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 011141029-03, PDC Light Curves

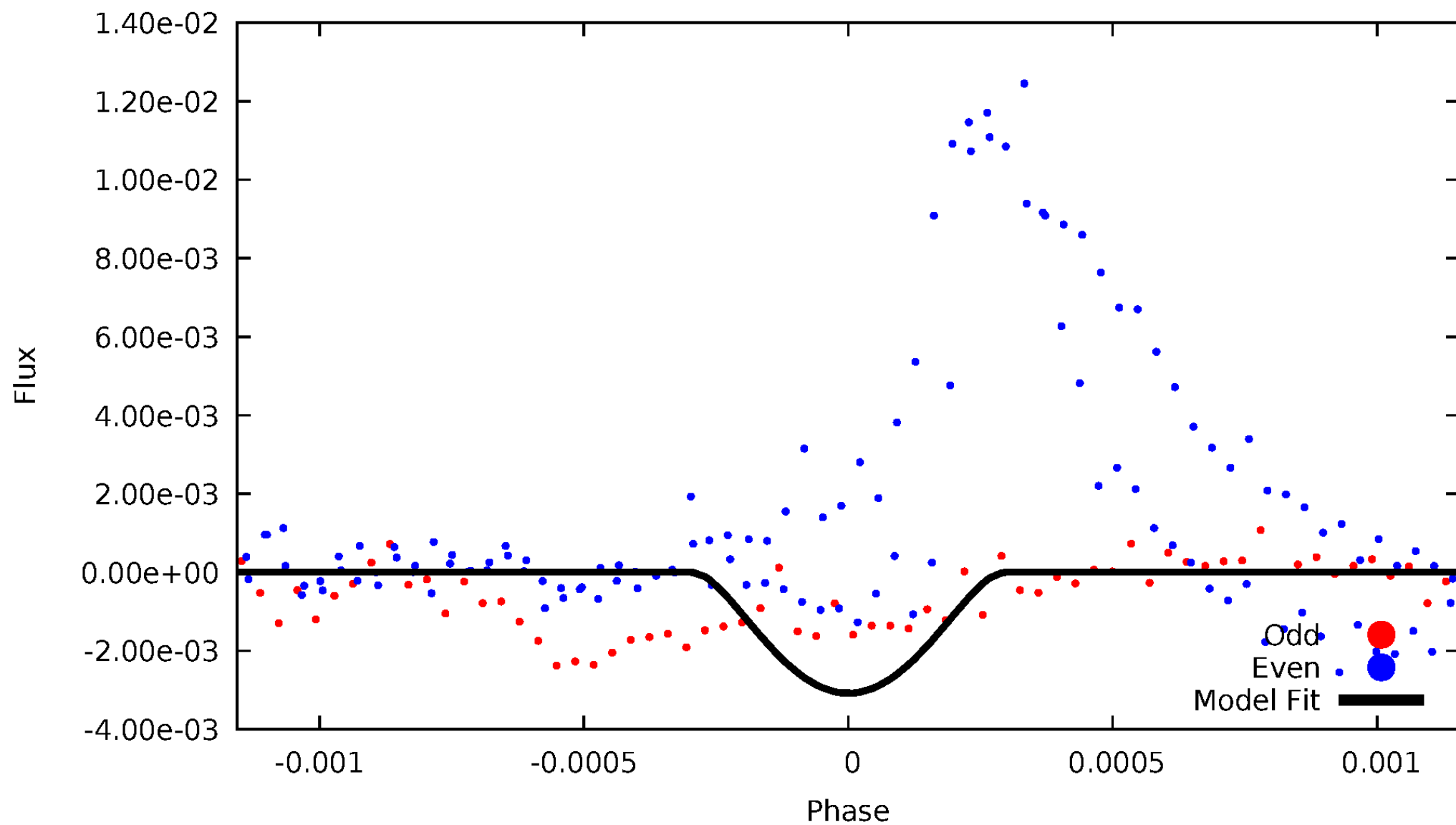


TCE 011141029-03



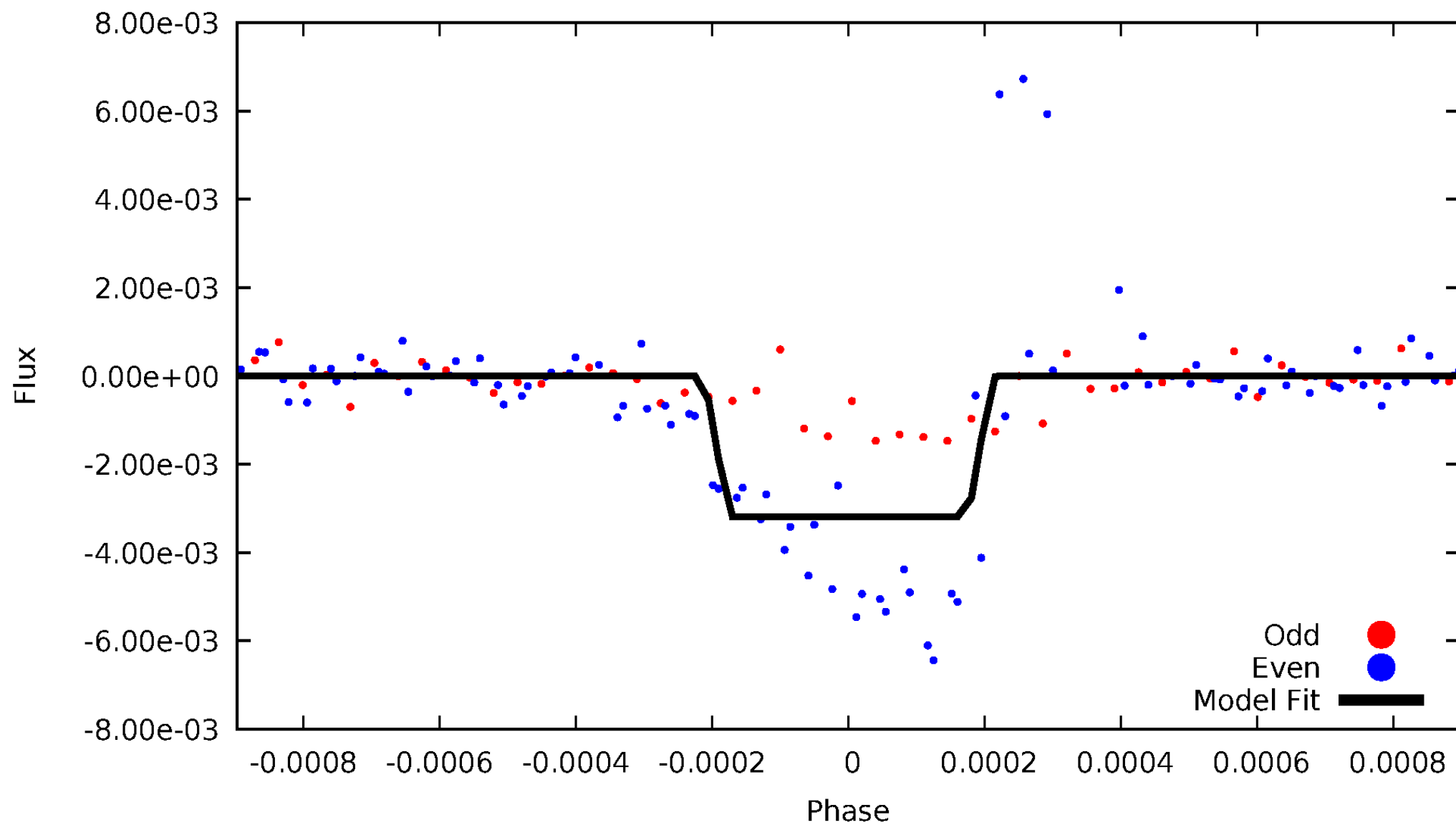
DV Odd/Even

TCE 011141029-03



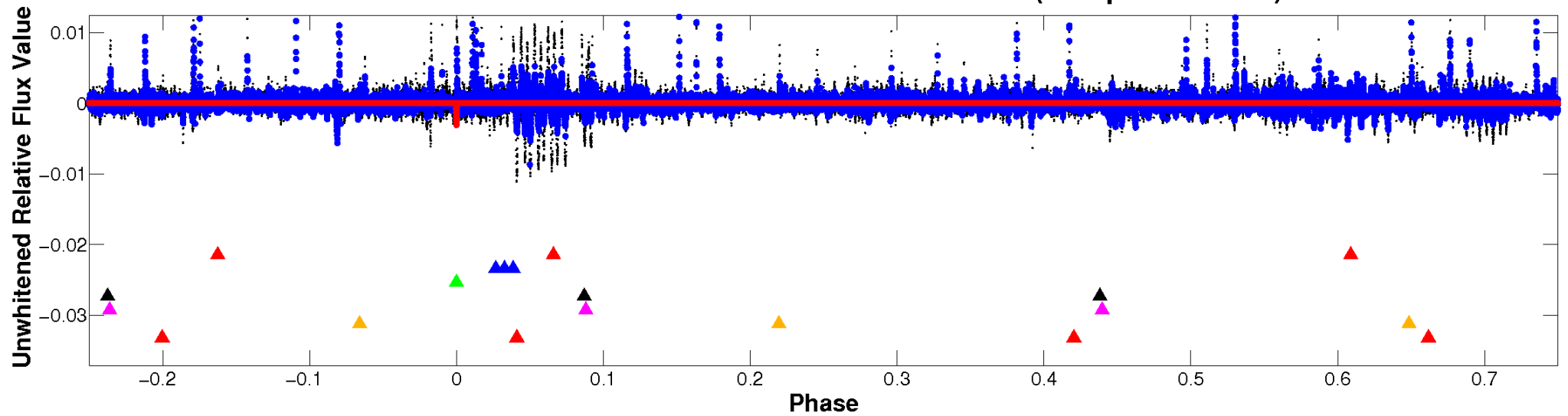
ALT Odd/Even

TCE 011141029-03

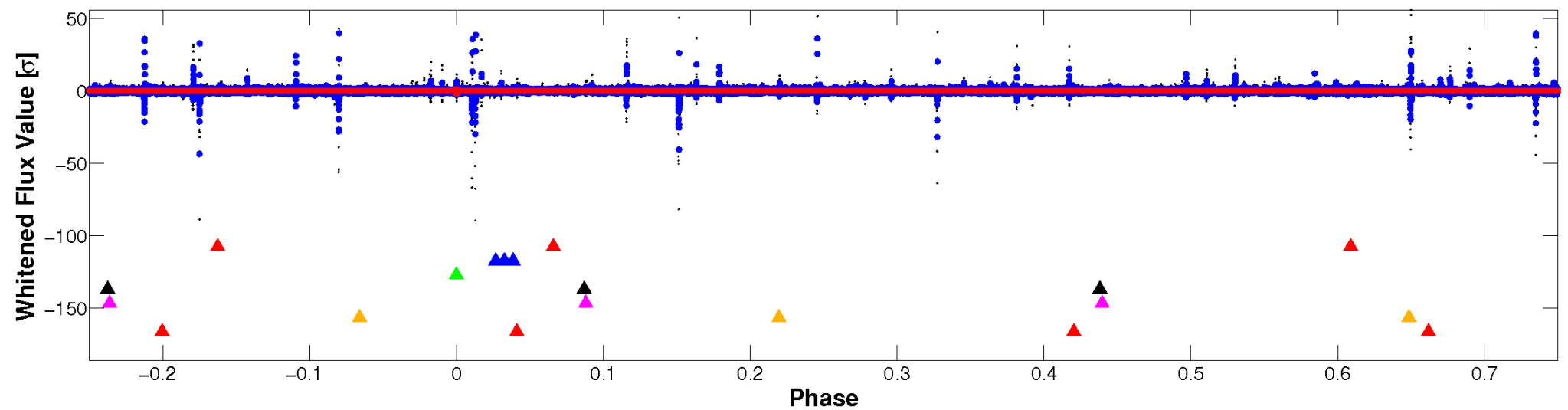


Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

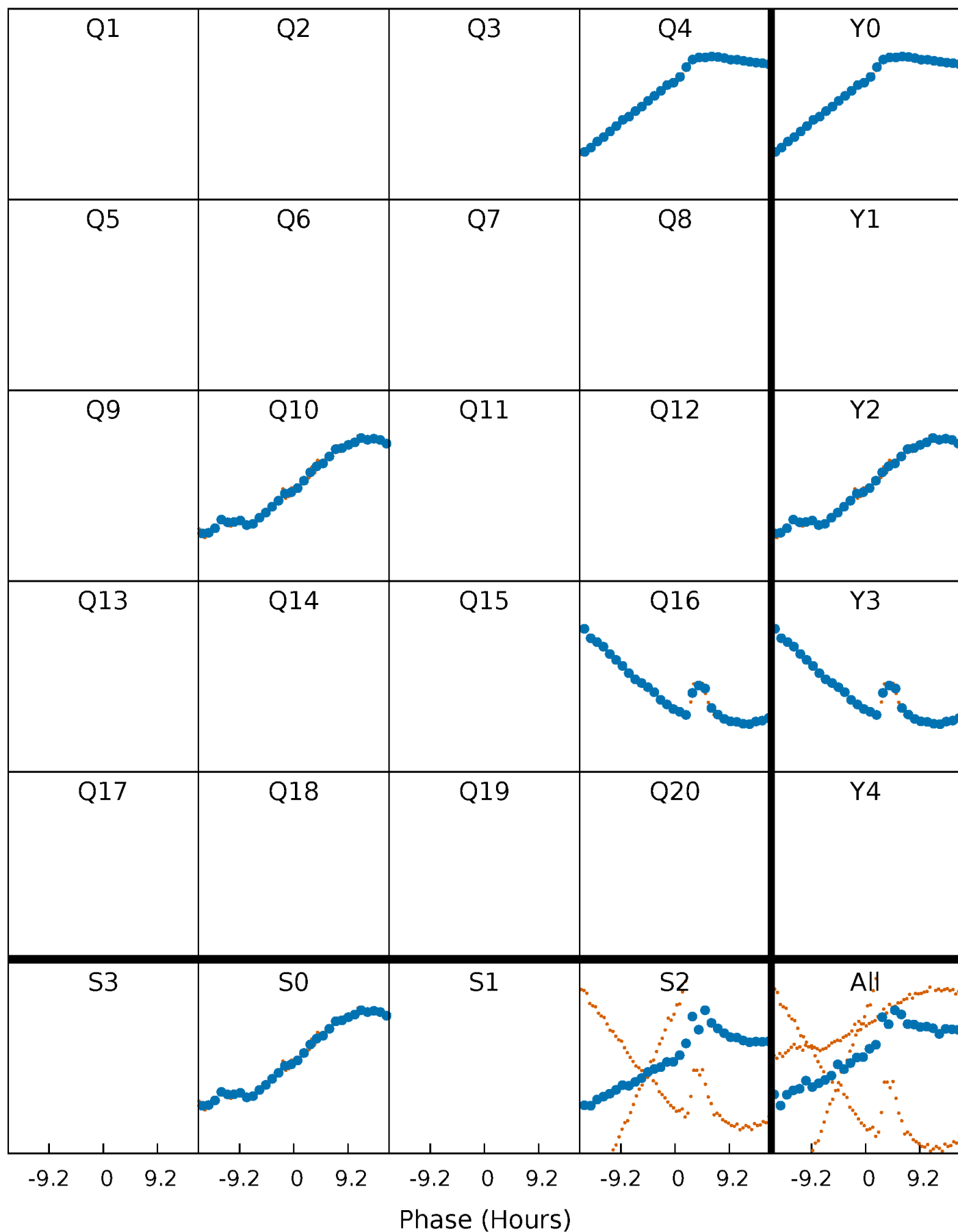


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



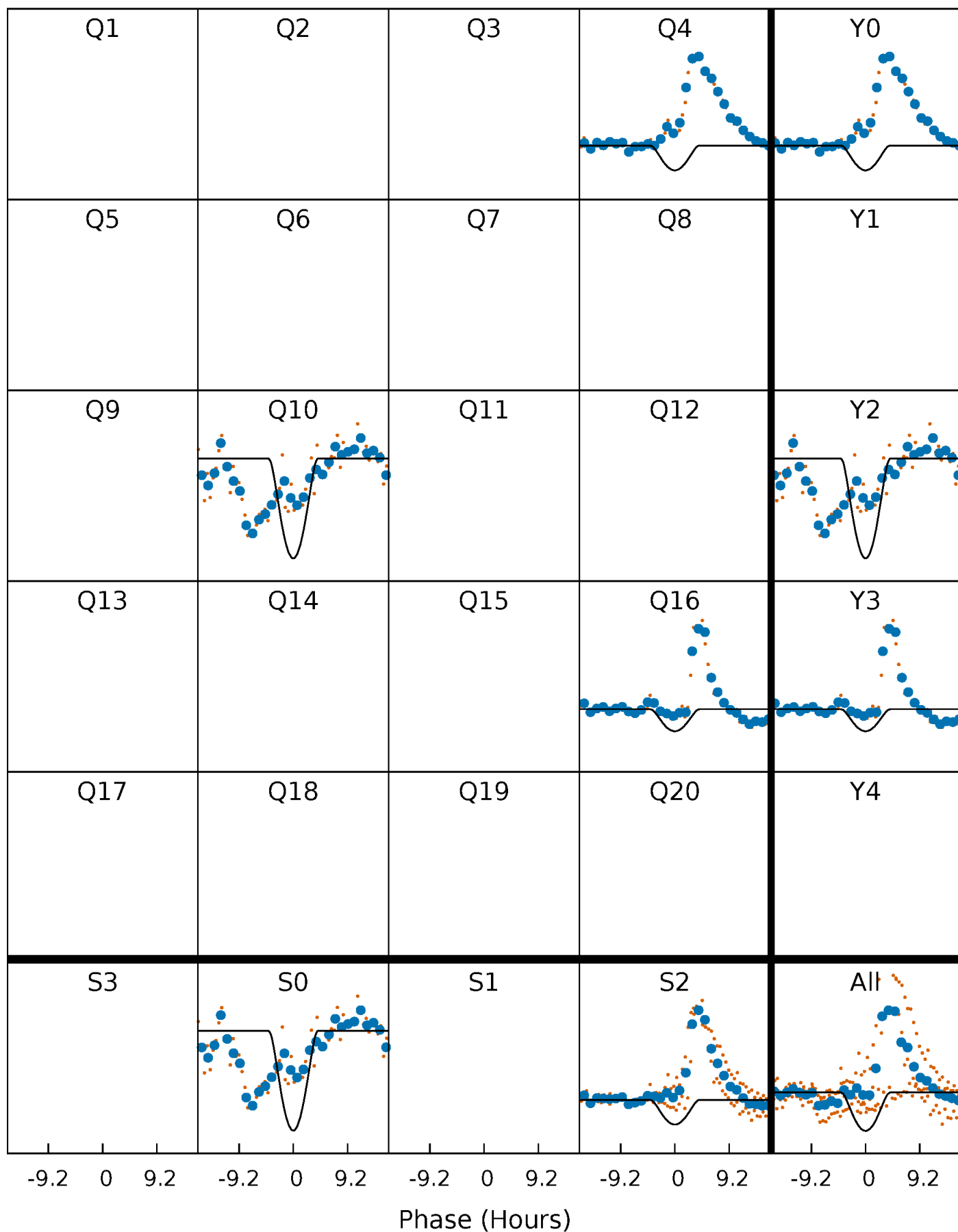
PDC Quarter-Phased Transit Curves

TCE 011141029-03 P=583.002322 Days $T_0=371.101637$ (BKJD)



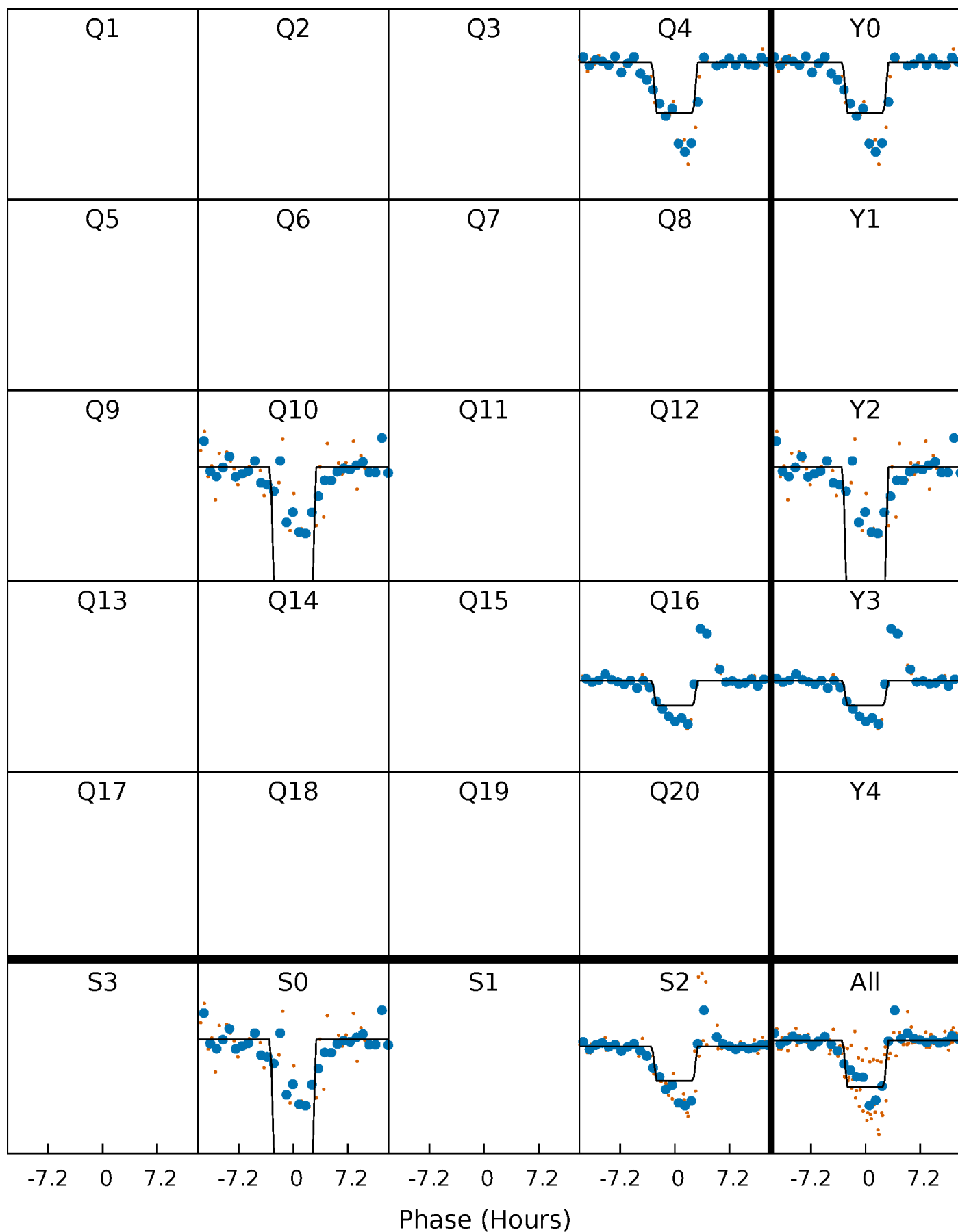
DV Quarter-Phased Transit Curves

TCE 011141029-03 P=583.002322 Days $T_0=371.101637$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

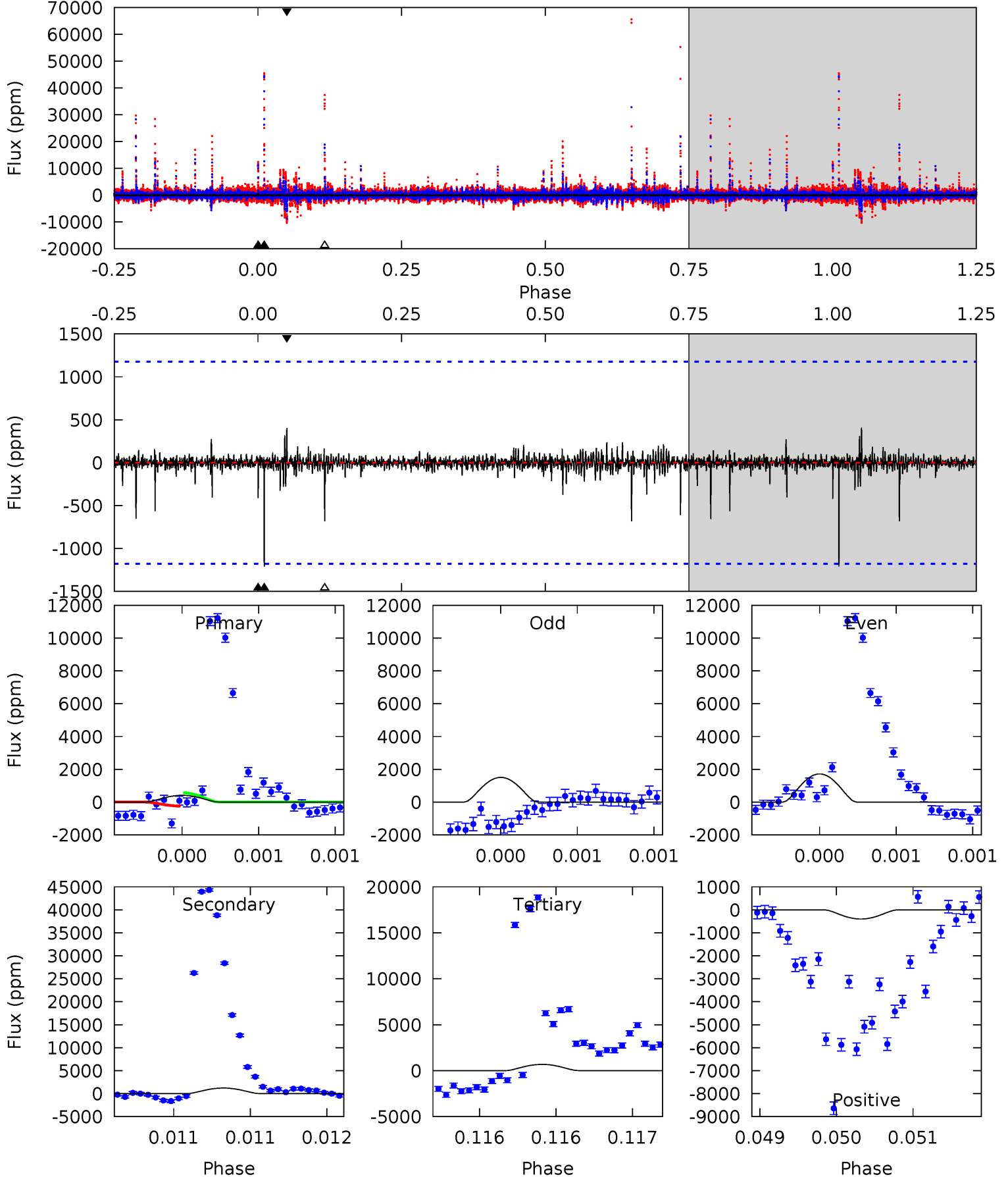
TCE 011141029-03 P=583.023956 Days $T_0=371.061853$ (BKJD)



DV Model-Shift Uniqueness Test

011141029-03, P = 583.002322 Days, E = 371.101637 Days

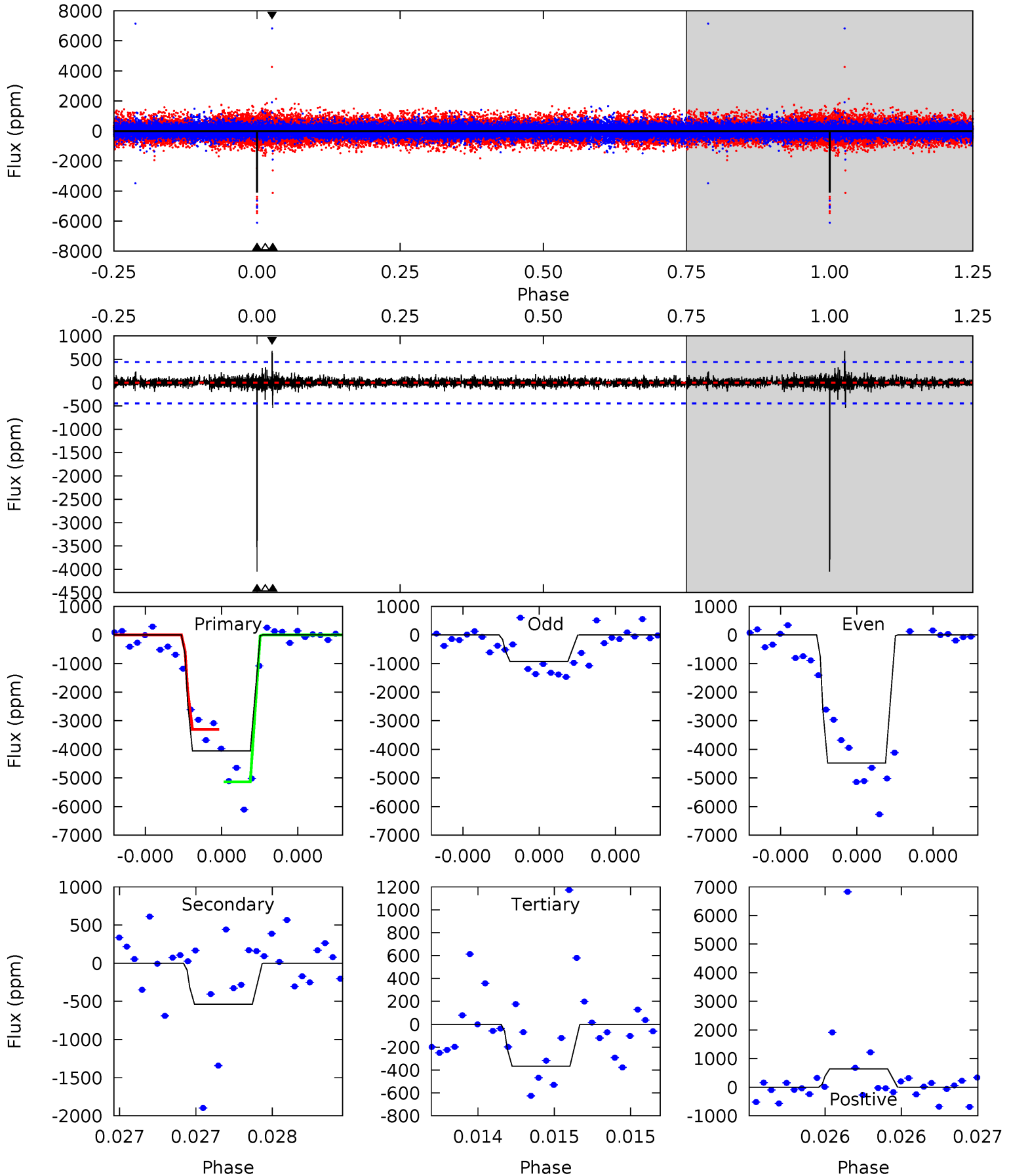
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.94	5.69	3.20	1.88	5.54	3.42	0.29	-1.27	0.06	2.49	3.81	0.32	103.5	0.25	0.76



Alt Model-Shift Uniqueness Test

011141029-03, P = 583.023956 Days, E = 371.061853 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
51.1	6.79	4.62	8.14	5.60	3.52	0.59	46.5	43.0	2.17	-1.36	25.5	0.75	0.14	11.3



Stellar Parameters For KIC 011141029

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4886^{+175}_{-175}	$4.667^{+0.056}_{-0.036}$	$-0.960^{+0.300}_{-0.300}$	$0.587^{+0.047}_{-0.042}$	$0.584^{+0.055}_{-0.025}$	$4.064^{+0.916}_{-0.559}$
	+4%/-4%	+1%/-1%	+31%/-31%	+8%/-7%	+9%/-4%	+23%/-14%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011141029-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1210 ± 213	$14.08^{+13.15}_{-9.74}$	215^{+8}_{-9}	2679^{+1131}_{-389}	4459^{+44822}_{-3262}
Alt.	-538 ± 79	$13.13^{+11.04}_{-9.44}$	215^{+9}_{-8}	2485^{+1012}_{-354}	2363^{+26633}_{-1728}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

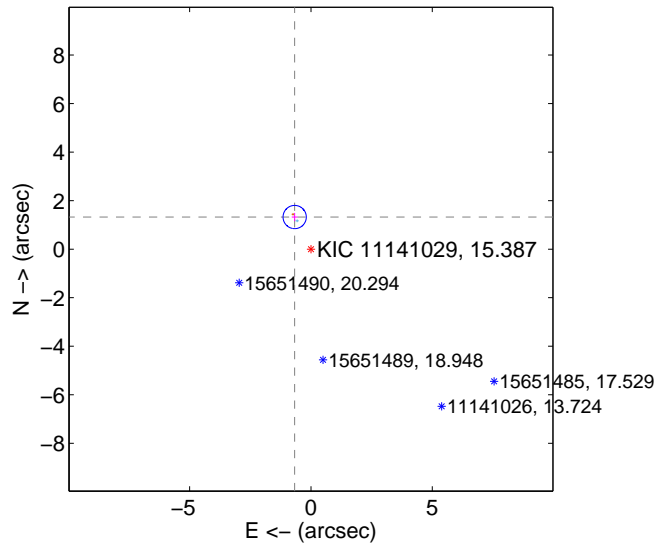
Supplemental centroid analysis for 011141029-03. Kepler magnitude: 15.39. Transit SNR 7.89

There are 2 quarters with good PRF difference image offsets

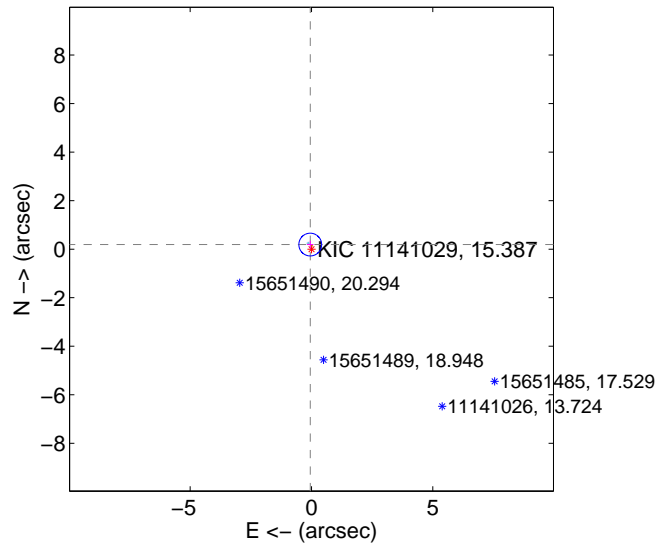
The direct PRF centroid is offset from the target star catalog position by about 1.02 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.485 ± 0.160	9.30	0.671 ± 0.118	1.325 ± 0.169
PRF-fit source offset from KIC position	0.197 ± 0.156	1.26	0.051 ± 0.136	0.190 ± 0.158
photometric centroid source offset	4.90 ± 1.14	4.31	-1.80 ± 0.81	-4.55 ± 1.18

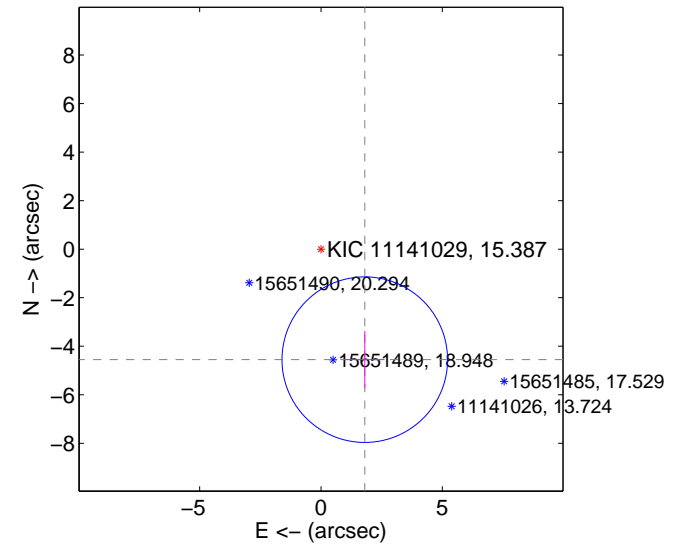
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

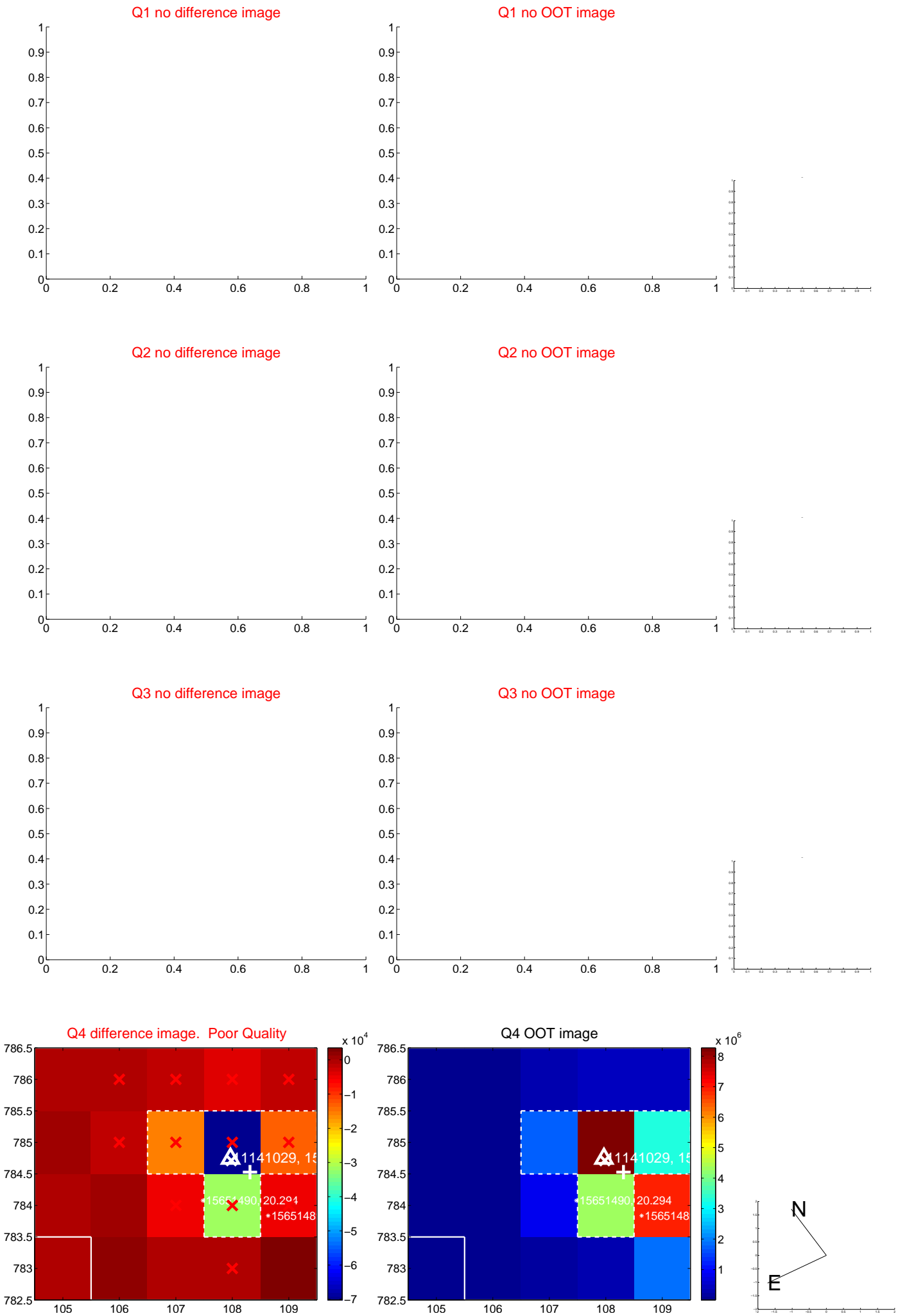


offset from photometric centroids



Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

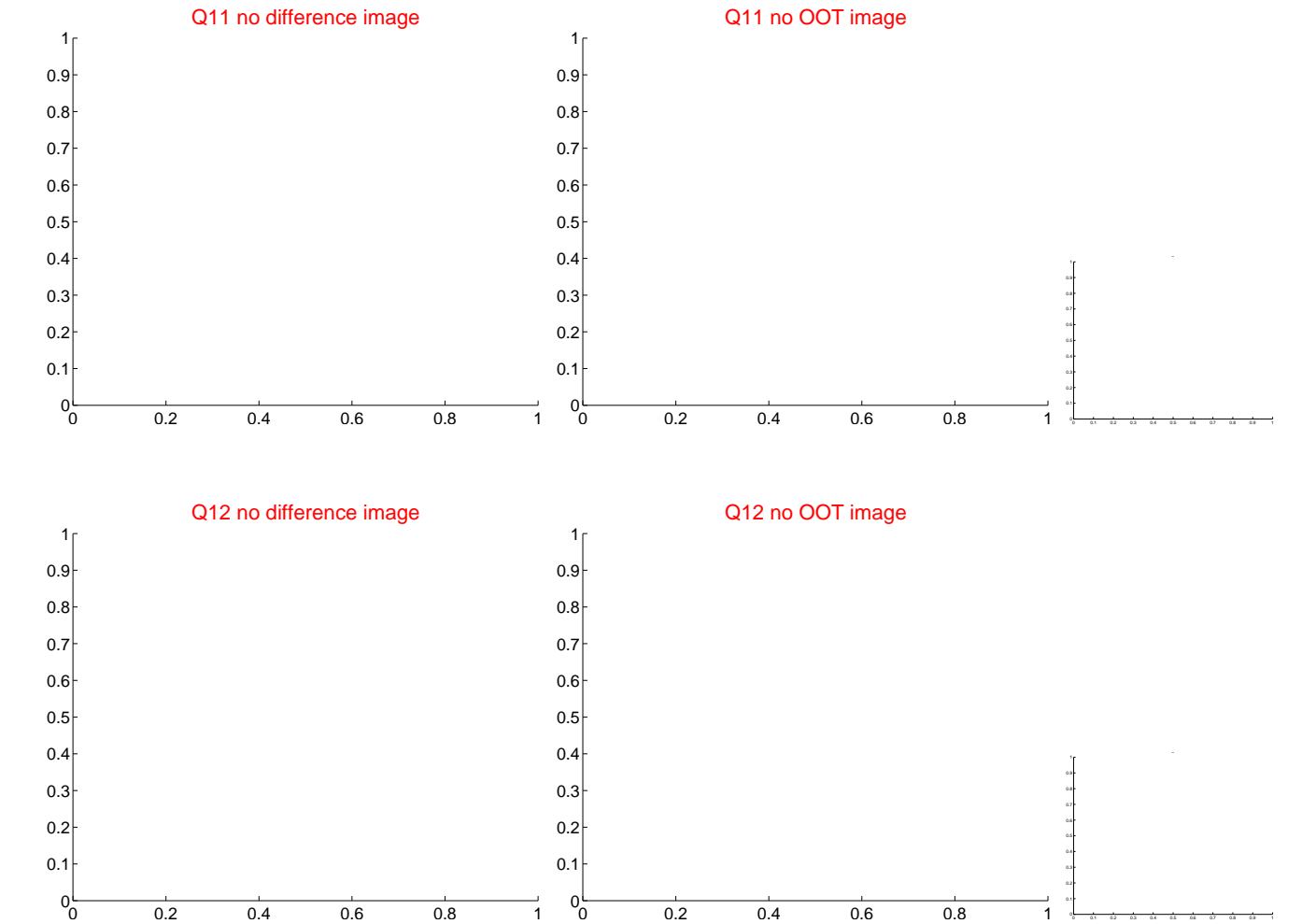
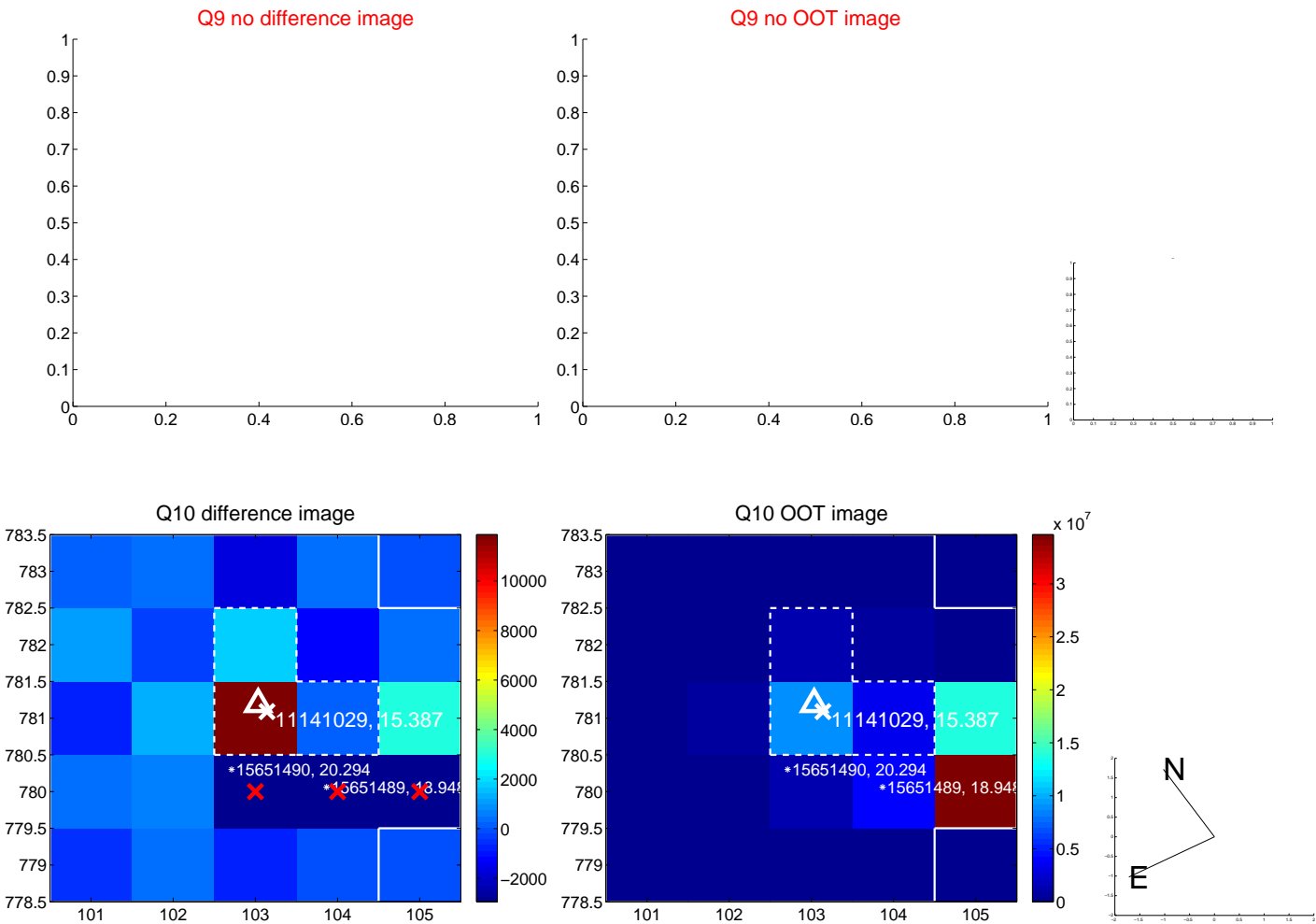
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



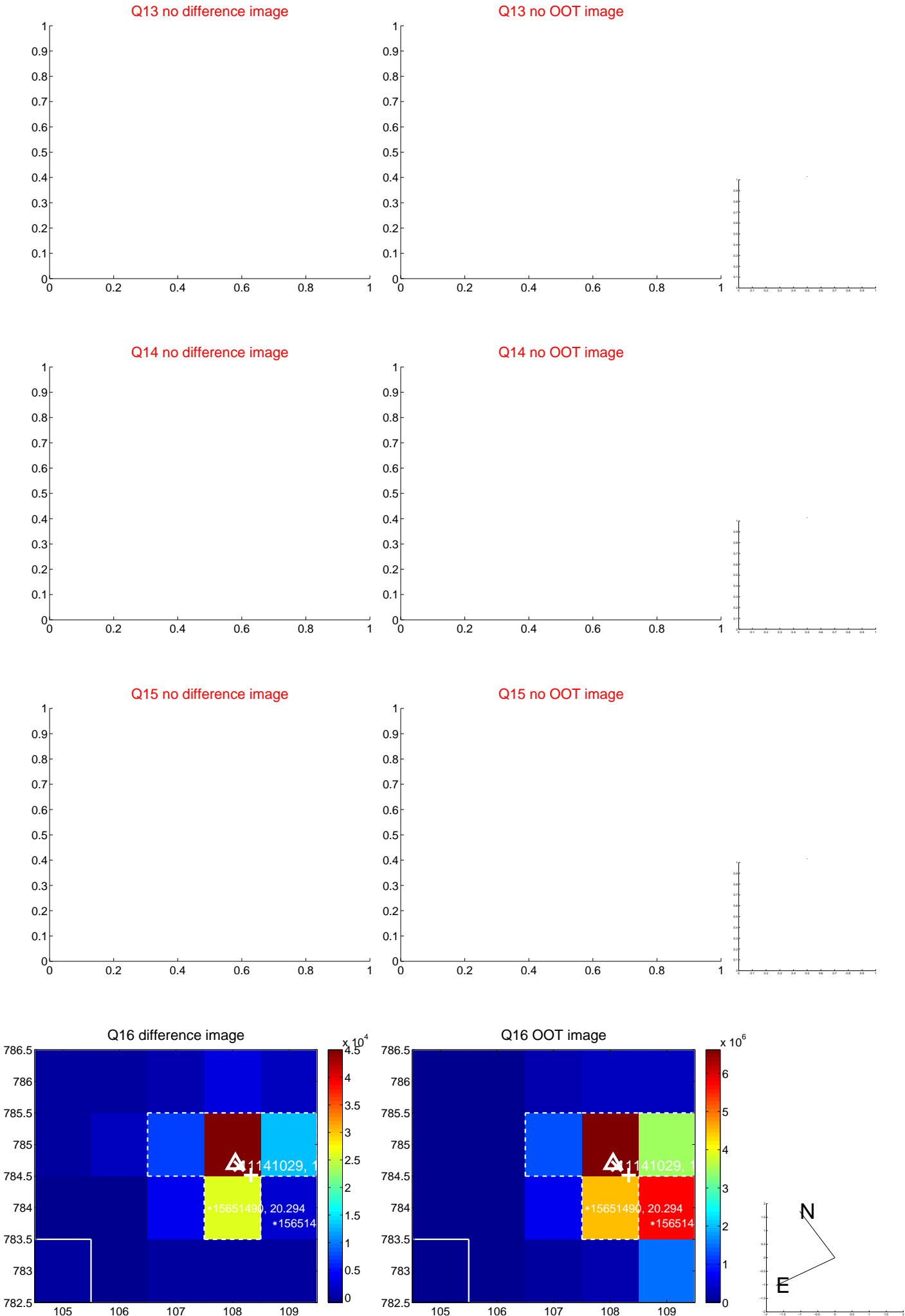
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



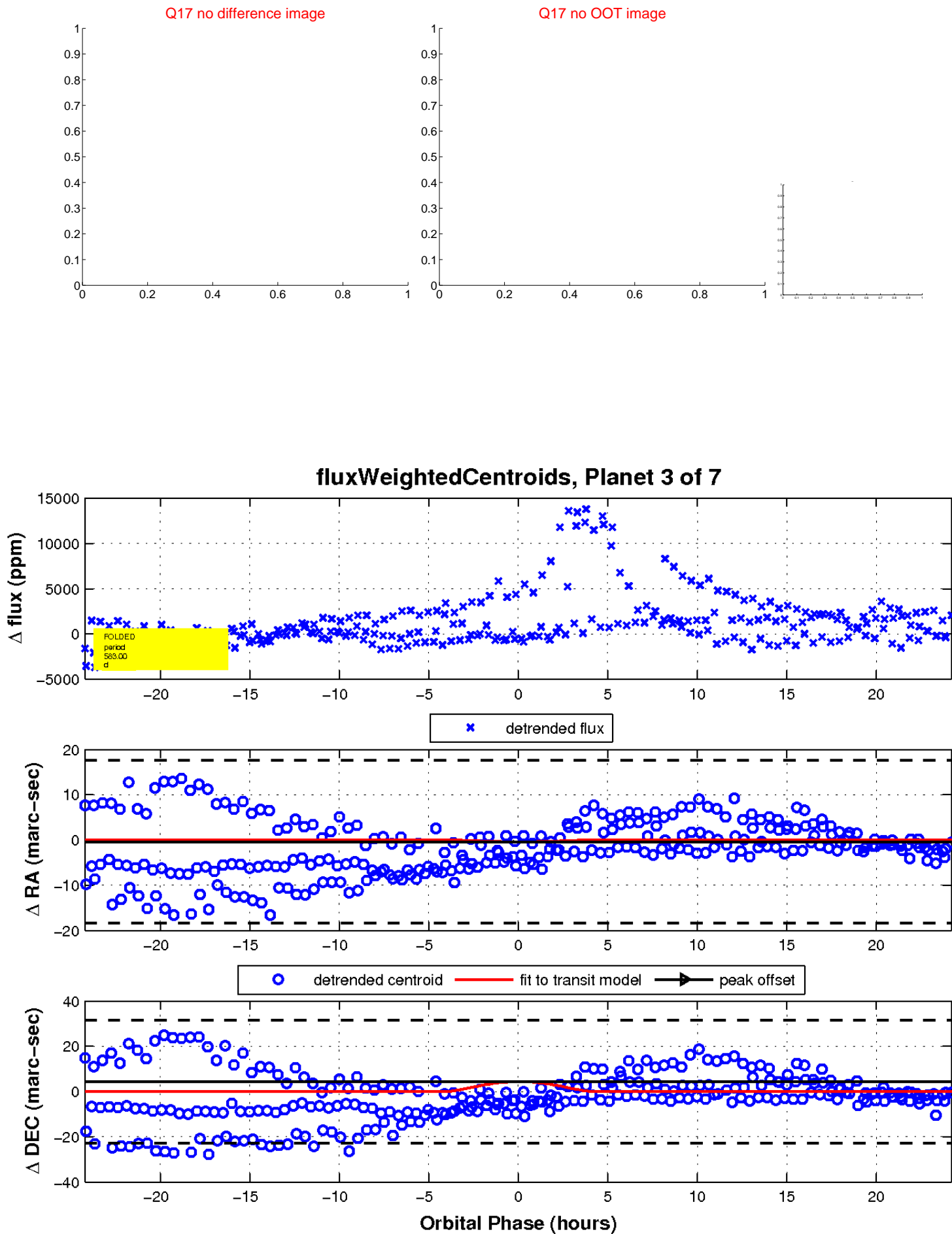
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.

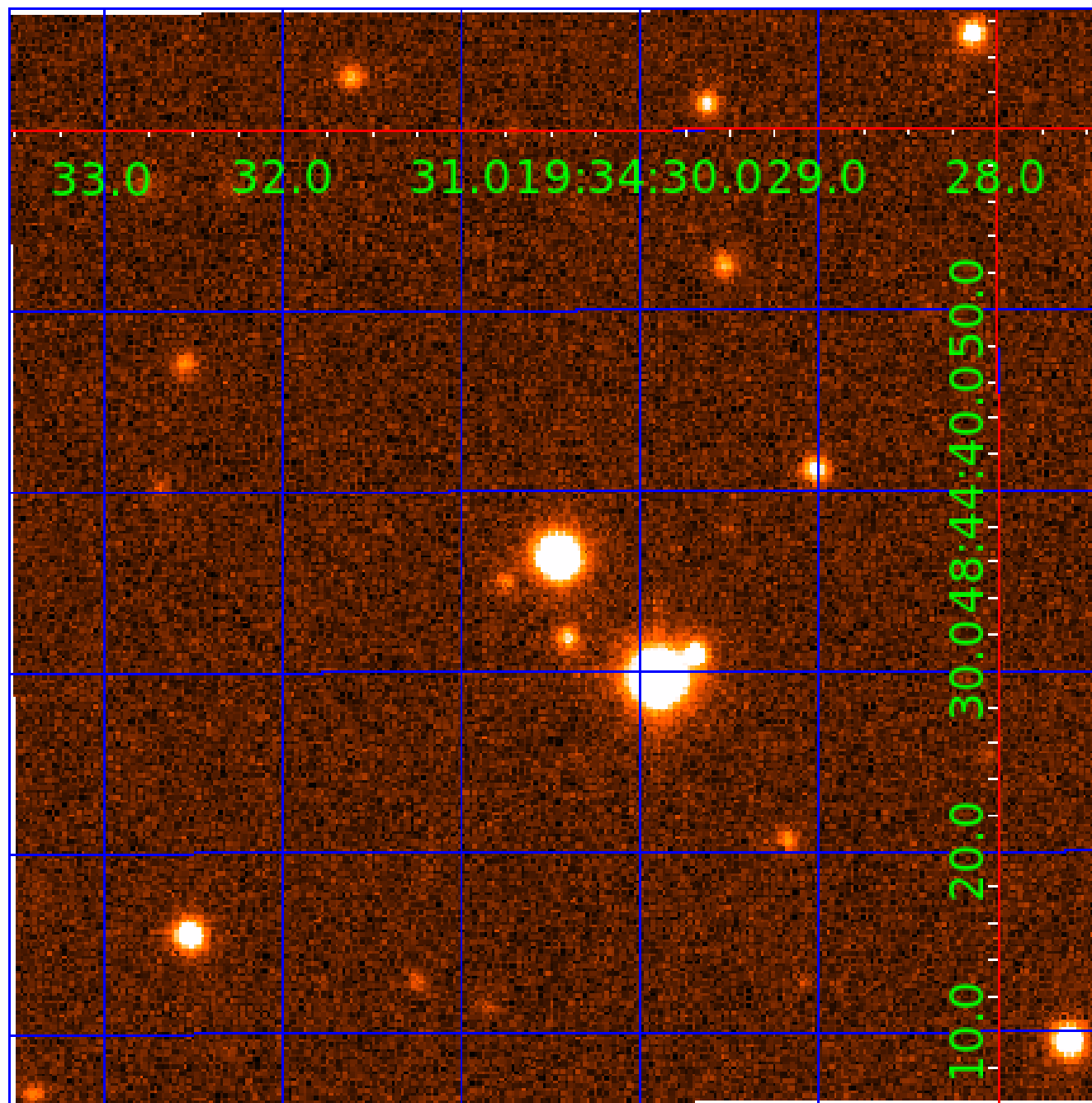


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011141029

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
011141029-01	OBS	No	449.750067	409.590244	1874.7	3.377	18.3	7.6	0.59	4886	2.51	0.19
011141029-02	OBS	No	579.544957	393.628891	2121.8	4.030	15.5	8.7	0.59	4886	2.73	0.14
011141029-03	OBS	No	583.002322	371.101637	3078.2	8.087	16.8	7.9	0.59	4886	6.27	0.14
011141029-04	OBS	No	393.856592	421.807037	515.0	5.861	15.0	2.3	0.59	4886	1.46	0.23
011141029-05	OBS	No	393.986282	422.464455	1256.0	10.500	14.7	-1.0	0.59	4886	2.04	0.23
011141029-06	OBS	No	416.555121	499.098582	2995.0	12.590	13.5	8.5	0.59	4886	3.23	0.21
011141029-07	OBS	No	361.888147	254.296784	1568.4	3.065	10.3	6.5	0.59	4886	2.39	0.26

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011141029-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011141029-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011141029-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011141029-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011141029-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—SAME_NTL_PERIOD—CENT_NOFITS
011141029-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_KIC_POS
011141029-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

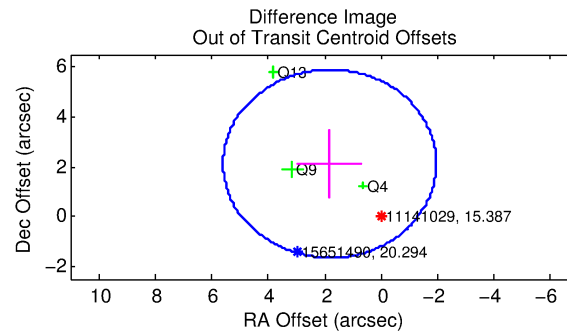
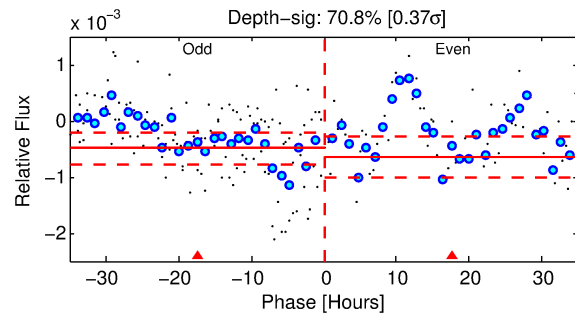
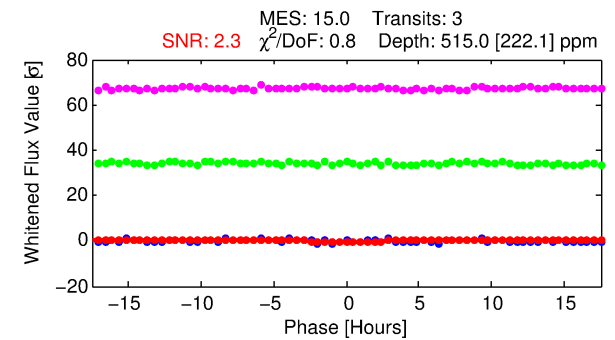
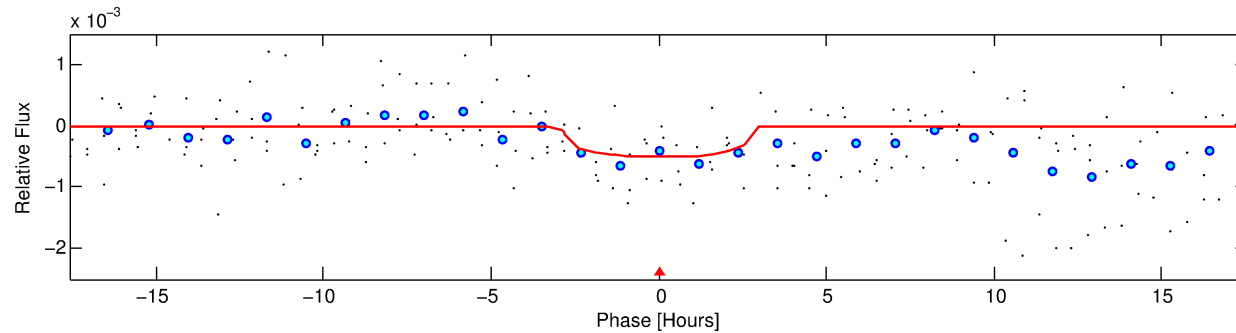
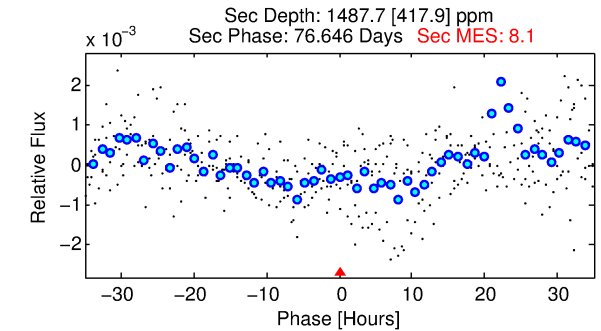
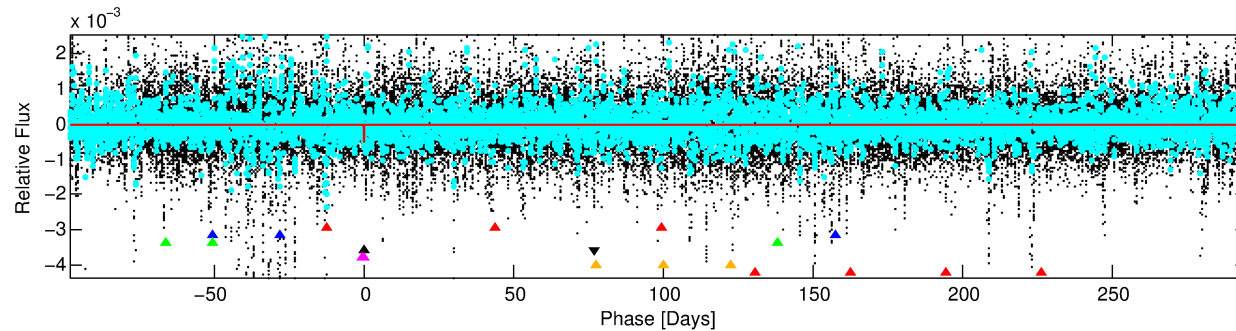
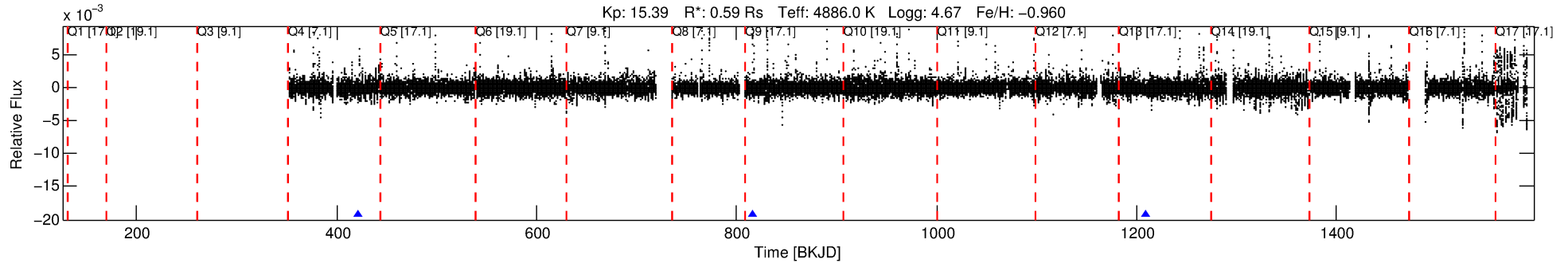
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011141029-04

No Significant Match Found

DV One-Page Summary

KIC: 11141029 Candidate: 4 of 7 Period: 393.857 d



DV Fit Results:

Period = 393.85659 [0.01635] d
Epoch = 421.8070 [0.0249] BKJD
Rp/R* = 0.0228 [0.0282]
a/R* = 346.25 [1599.47]
b = 0.77 [2.48]
Seff = 0.23 [0.04]
Teq = 176 [8] K
Rp = 1.46 [1.81] Re
a = 0.8791 [0.0602] AU
Ag = 296386.32 [738789.69] [0.40 σ]
Teffp = 6354 [3963] K [1.56 σ]

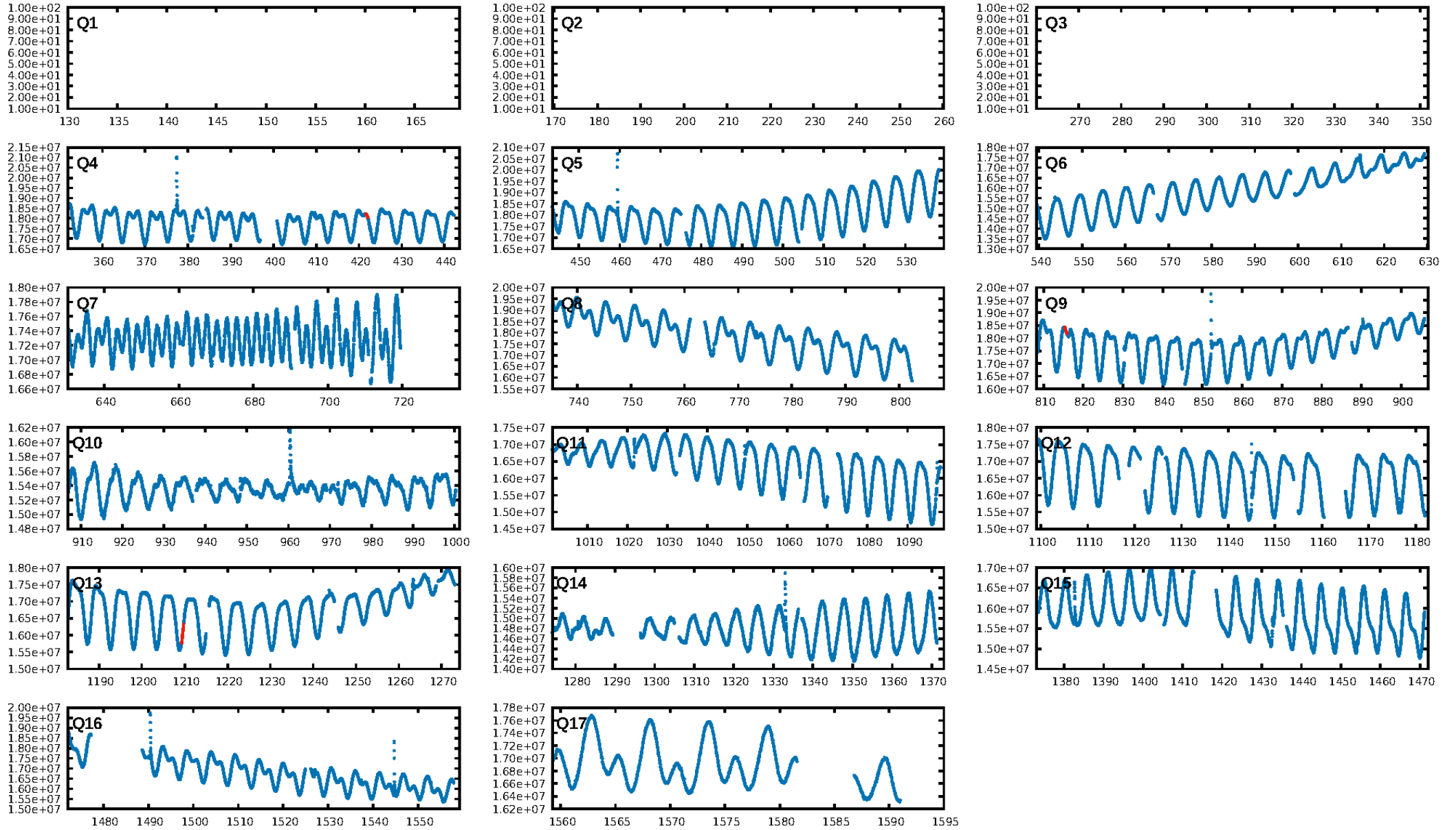
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [116.00 σ]
LongPeriod-sig: 20.4% [0.26 σ]
ModelChiSquare2-sig: 47.4%
ModelChiSquareGof-sig: 99.4%
Bootstrap-pfa: 1.60e-14
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -0.4472
Centroid-sig: 58.3%
Centroid-so: 2.824 arcsec [0.46 σ]
OotOffset-rm: 2.792 arcsec [2.22 σ]
KicOffset-rm: 0.105 arcsec [0.18 σ]
OotOffset-st: 0/0/1/2 [3]
KicOffset-st: 0/0/1/2 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 0.00 [0/3]

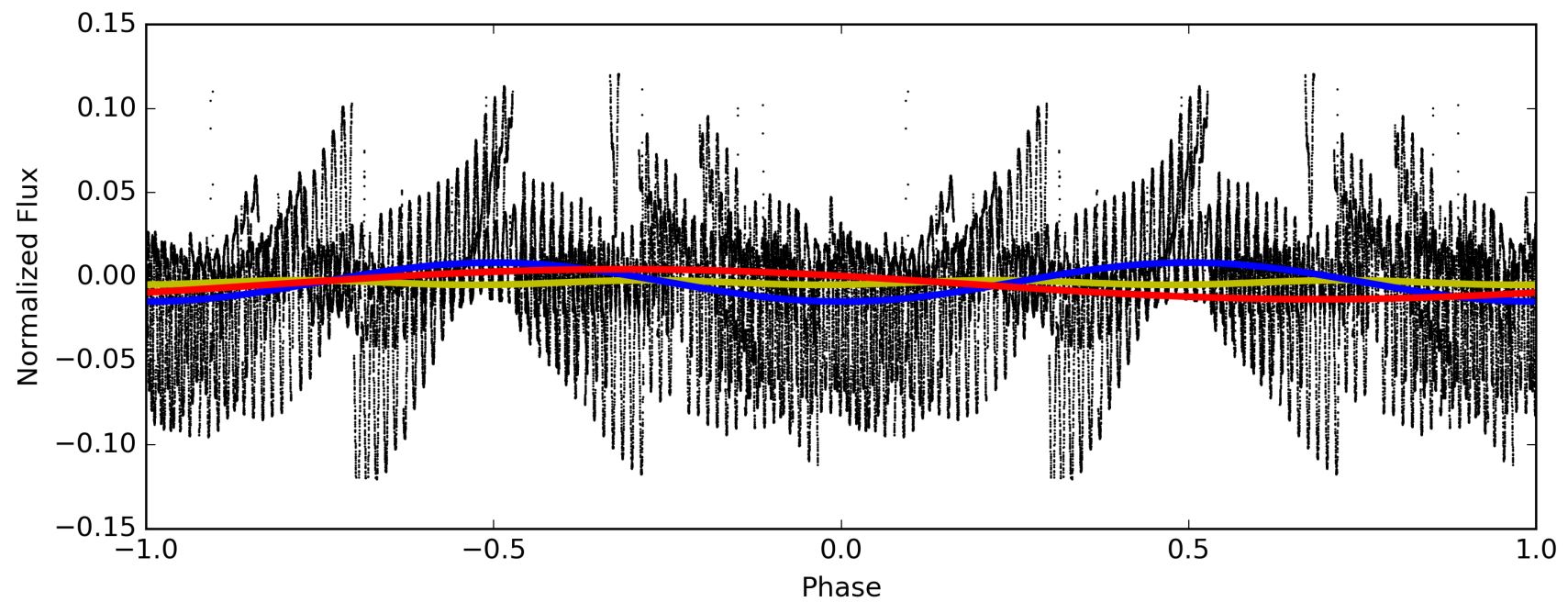
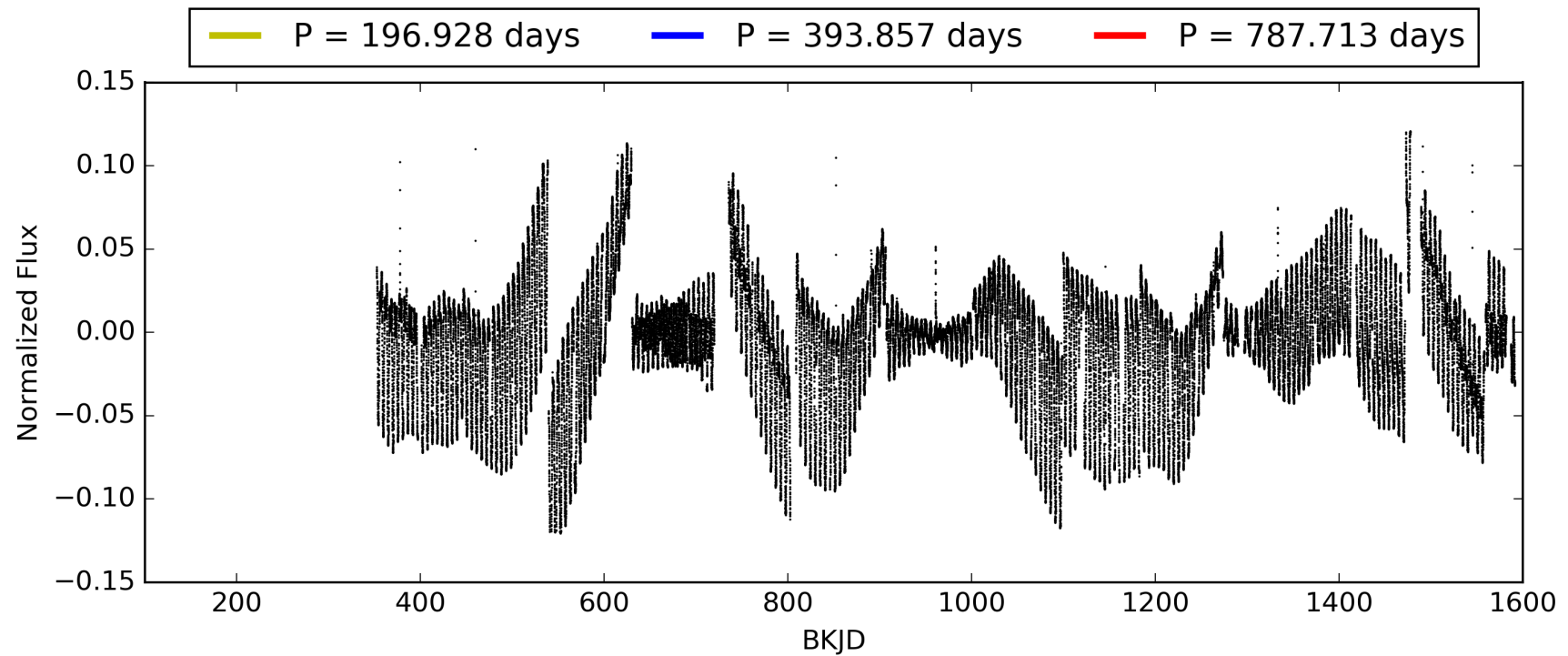
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:41:53 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 011141029-04, PDC Light Curves

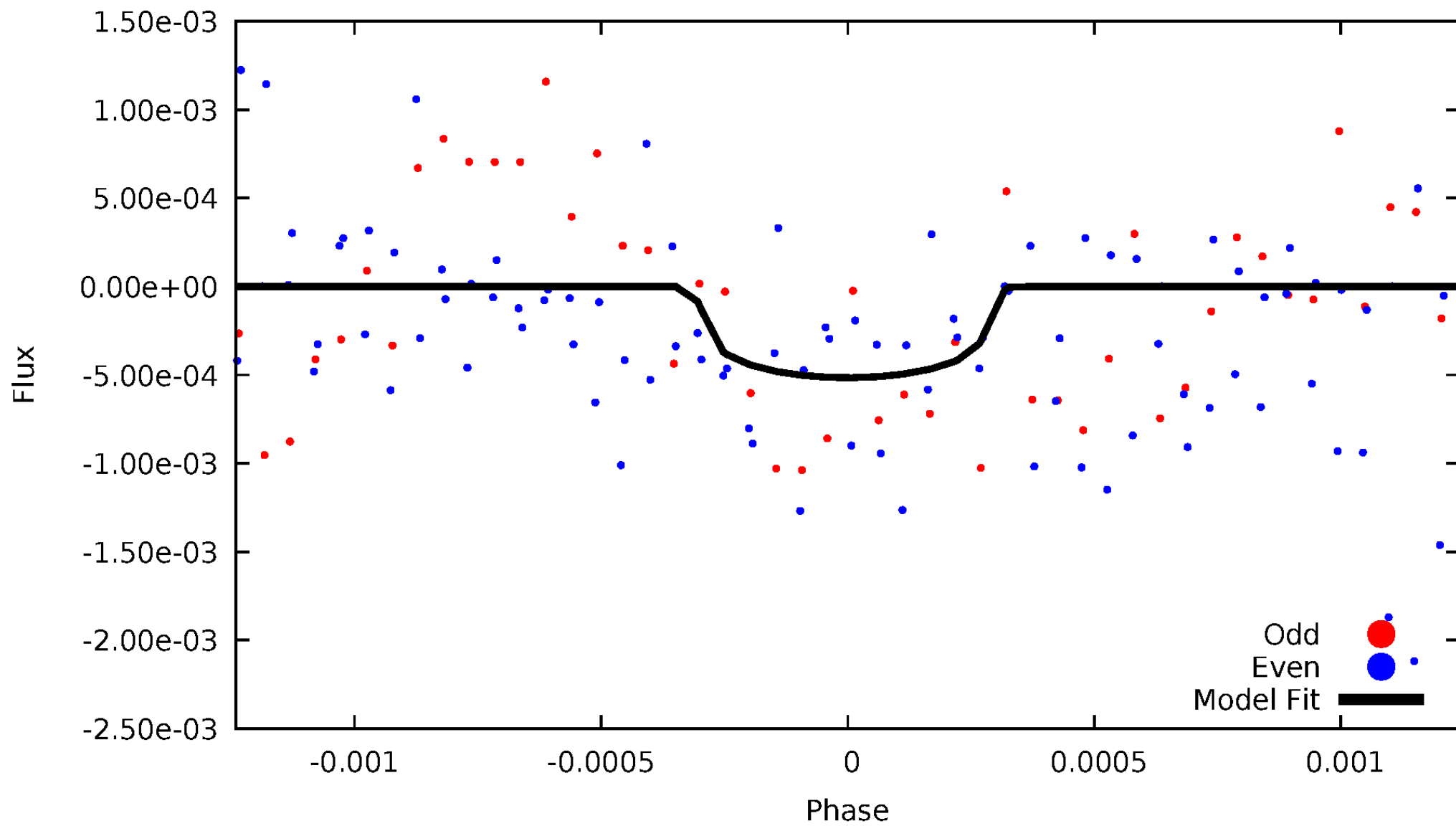


TCE 011141029-04



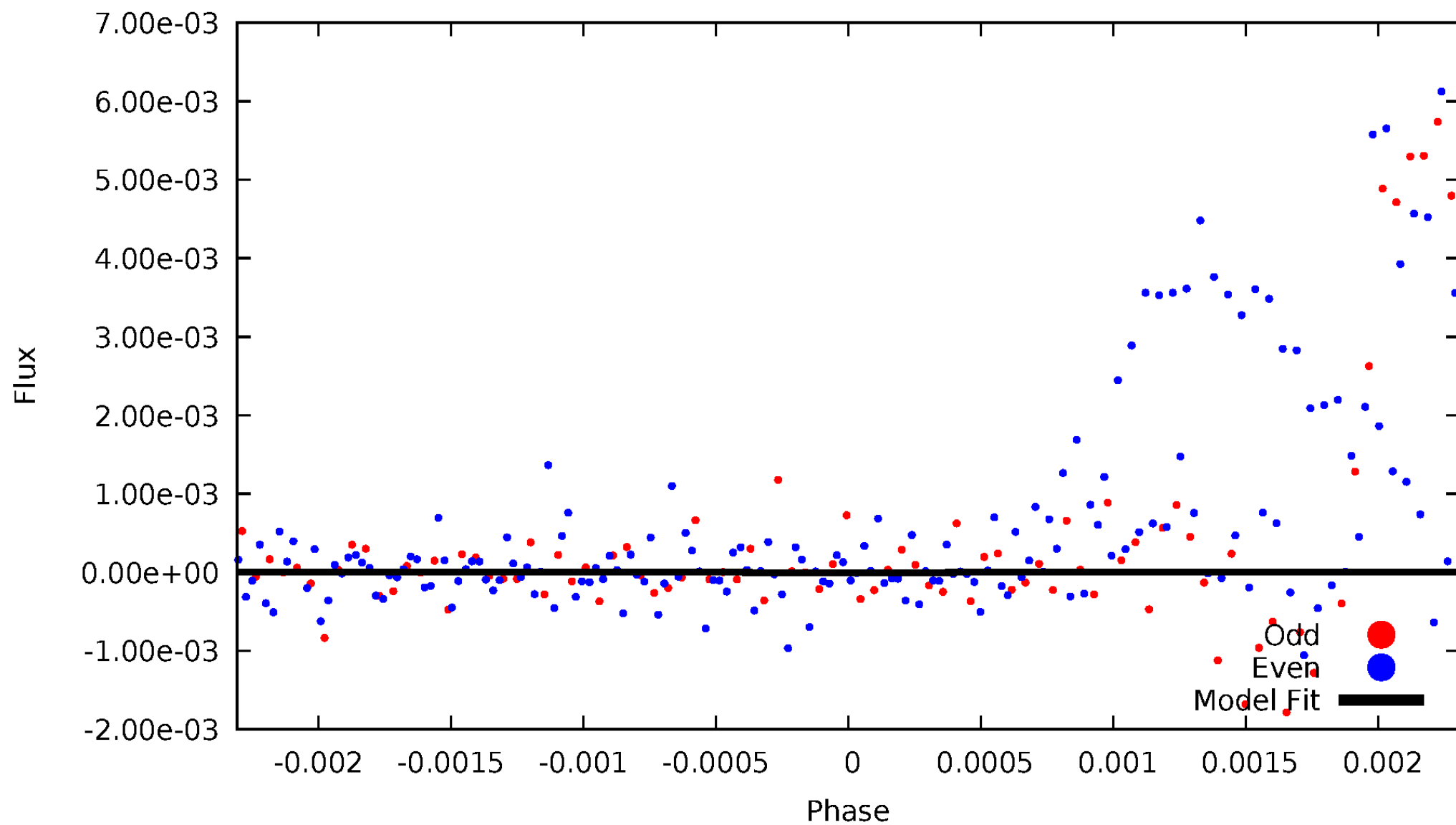
DV Odd/Even

TCE 011141029-04



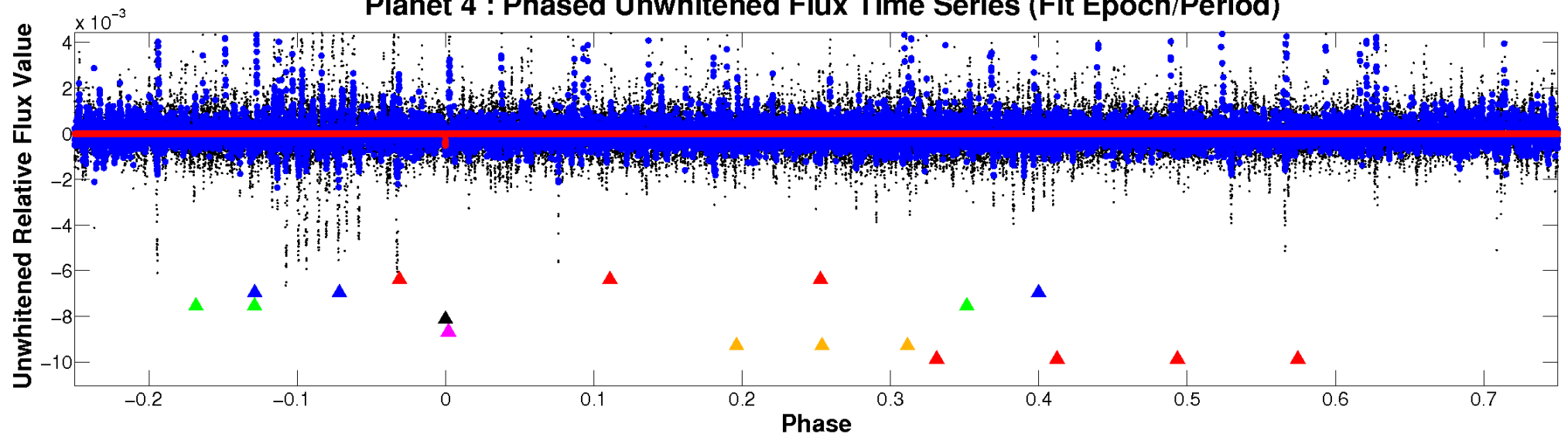
ALT Odd/Even

TCE 011141029-04

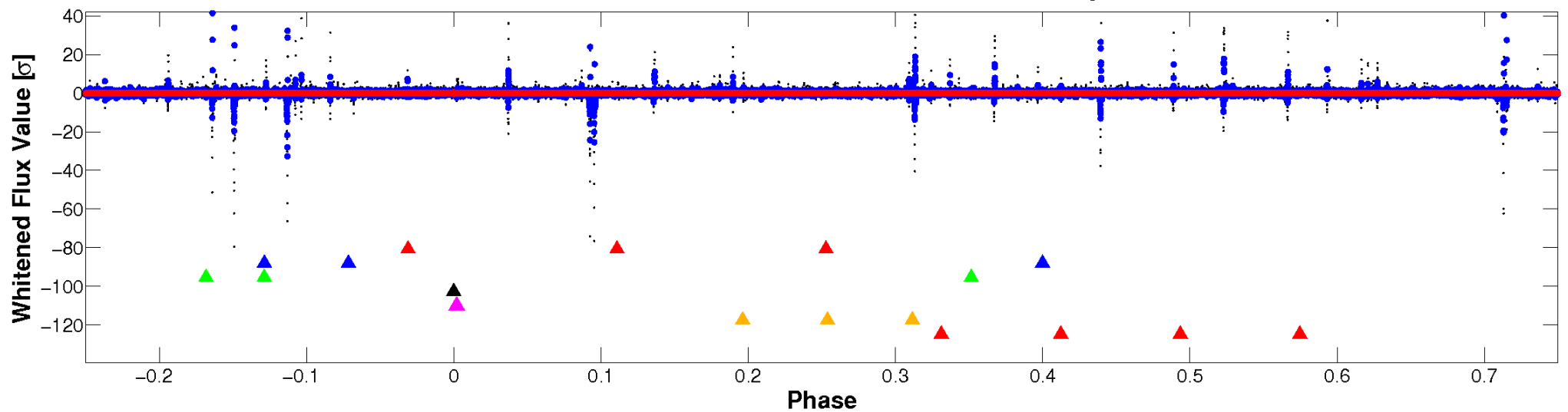


Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

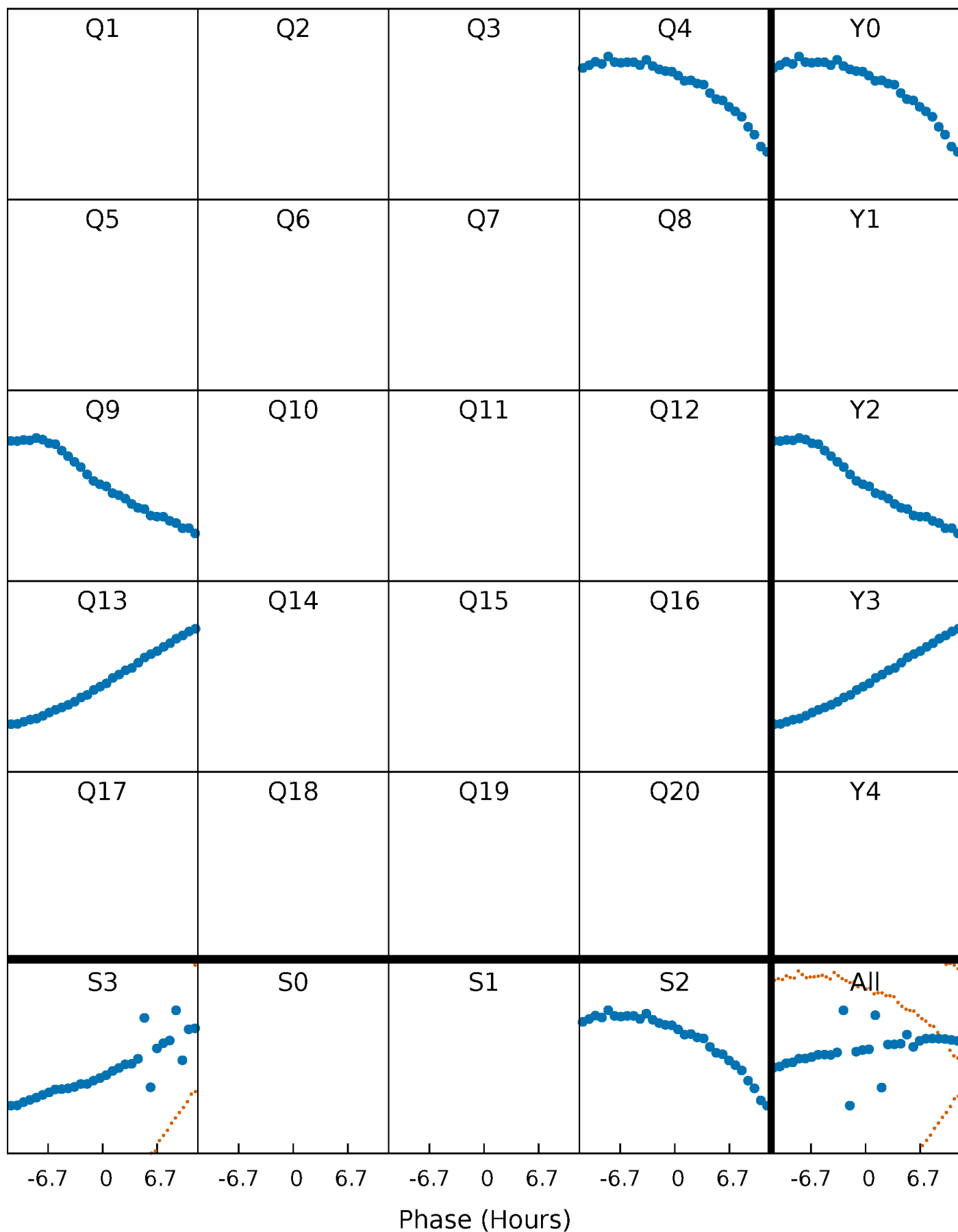


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



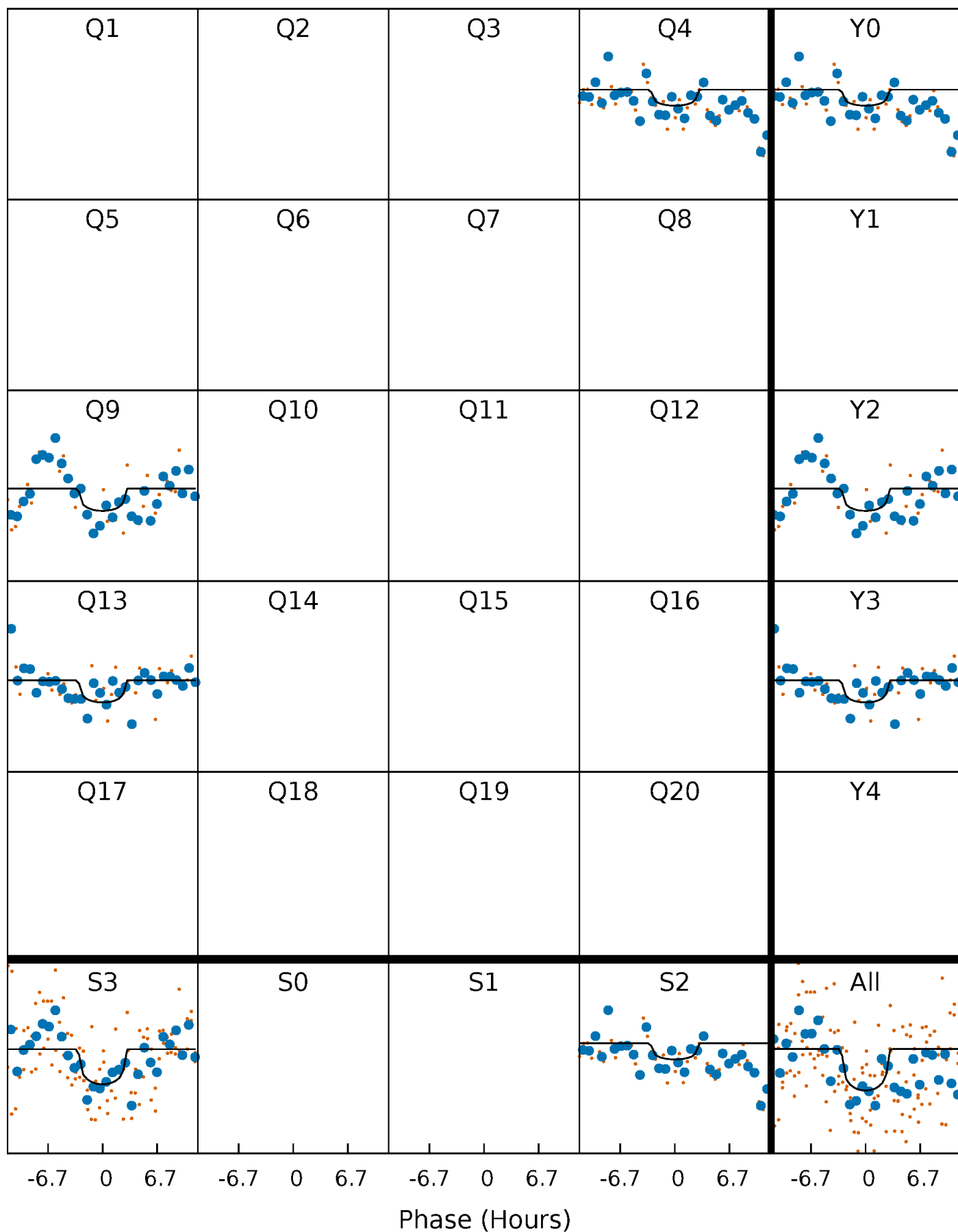
PDC Quarter-Phased Transit Curves

TCE 011141029-04 P=393.856592 Days $T_0=421.807037$ (BKJD)



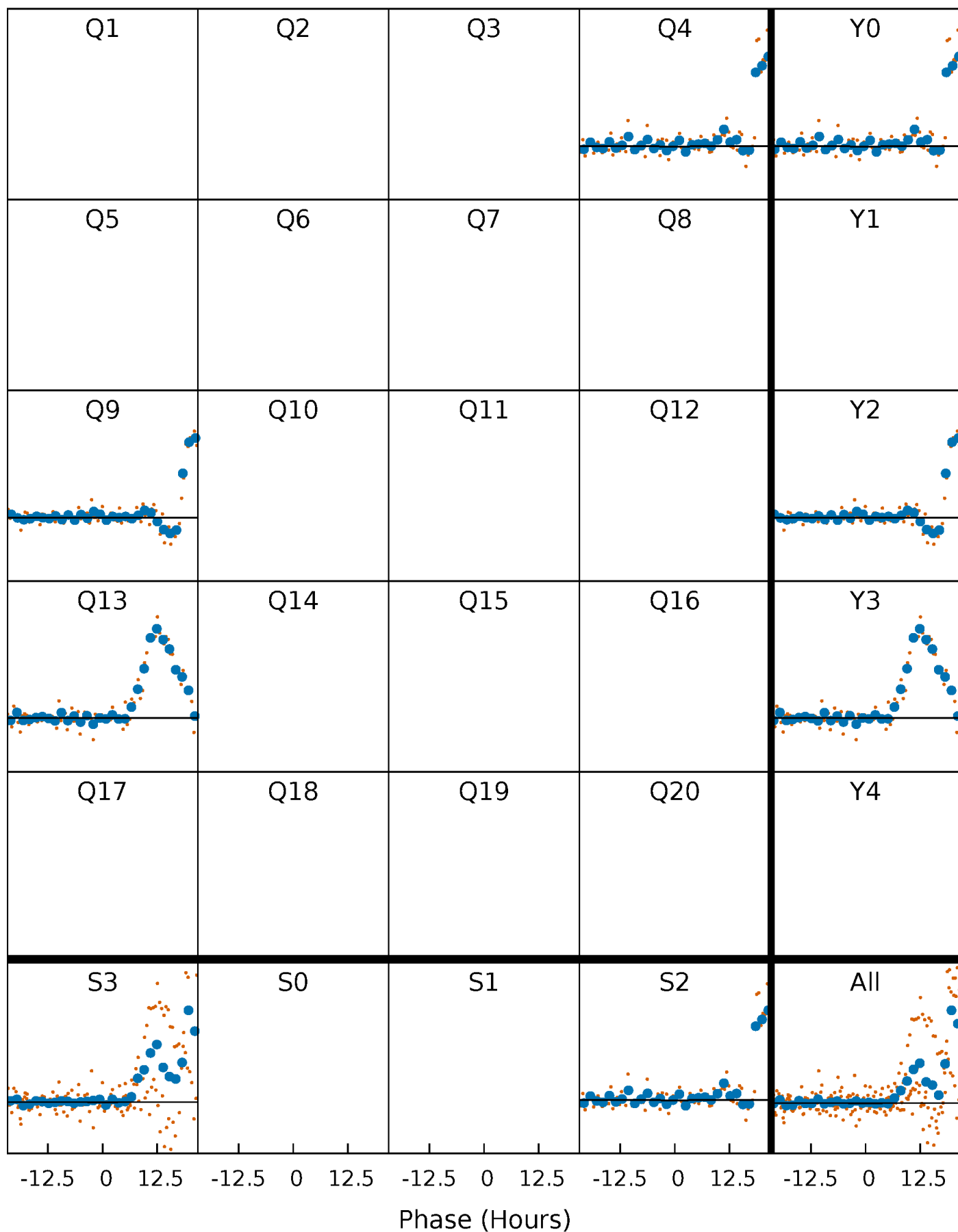
DV Quarter-Phased Transit Curves

TCE 011141029-04 $P=393.856592$ Days $T_0=421.807037$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

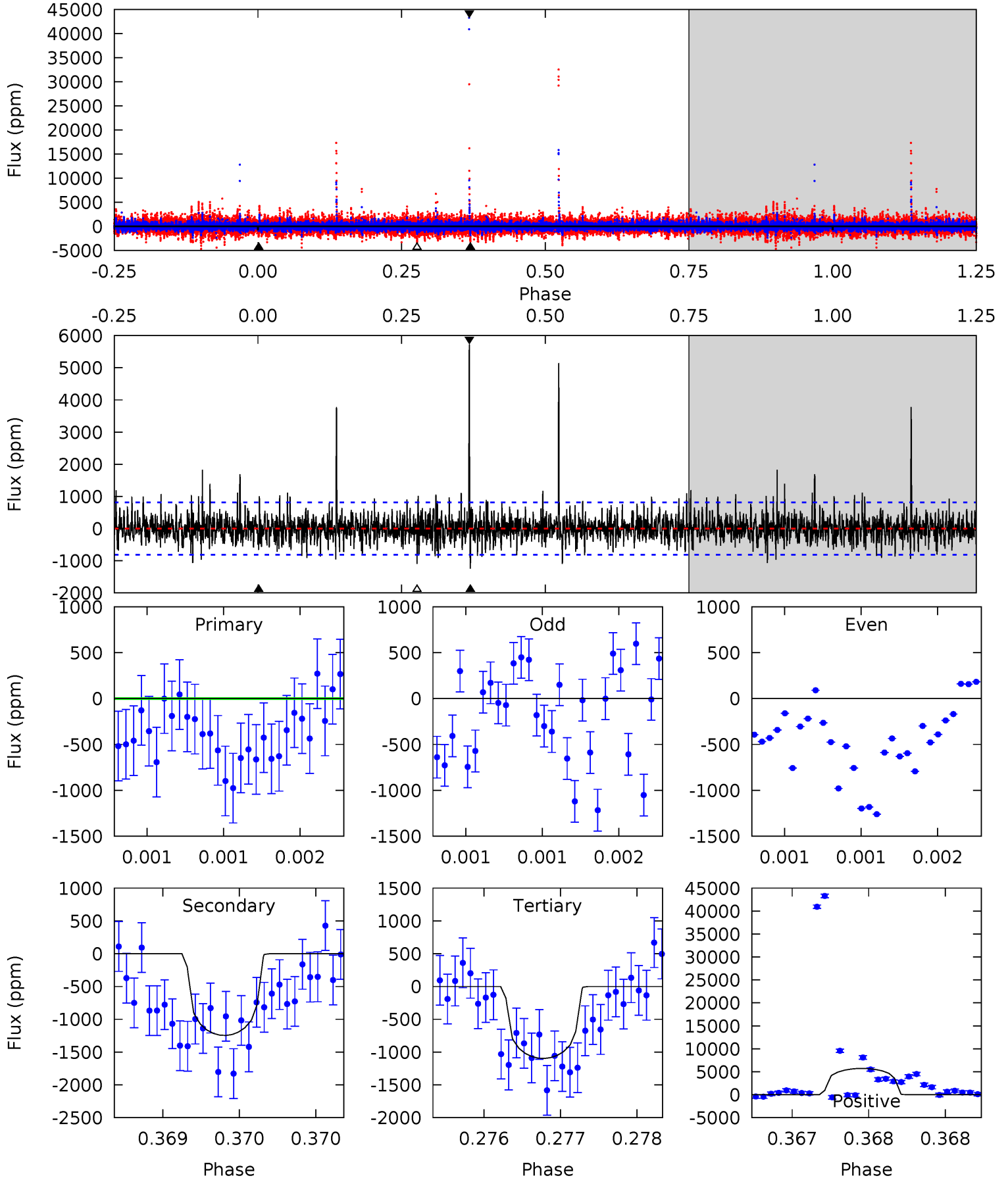
TCE 011141029-04 $P=393.986282$ Days $T_0=421.908702$ (BKJD)



DV Model-Shift Uniqueness Test

011141029-04, P = 393.856592 Days, E = 27.950445 Days

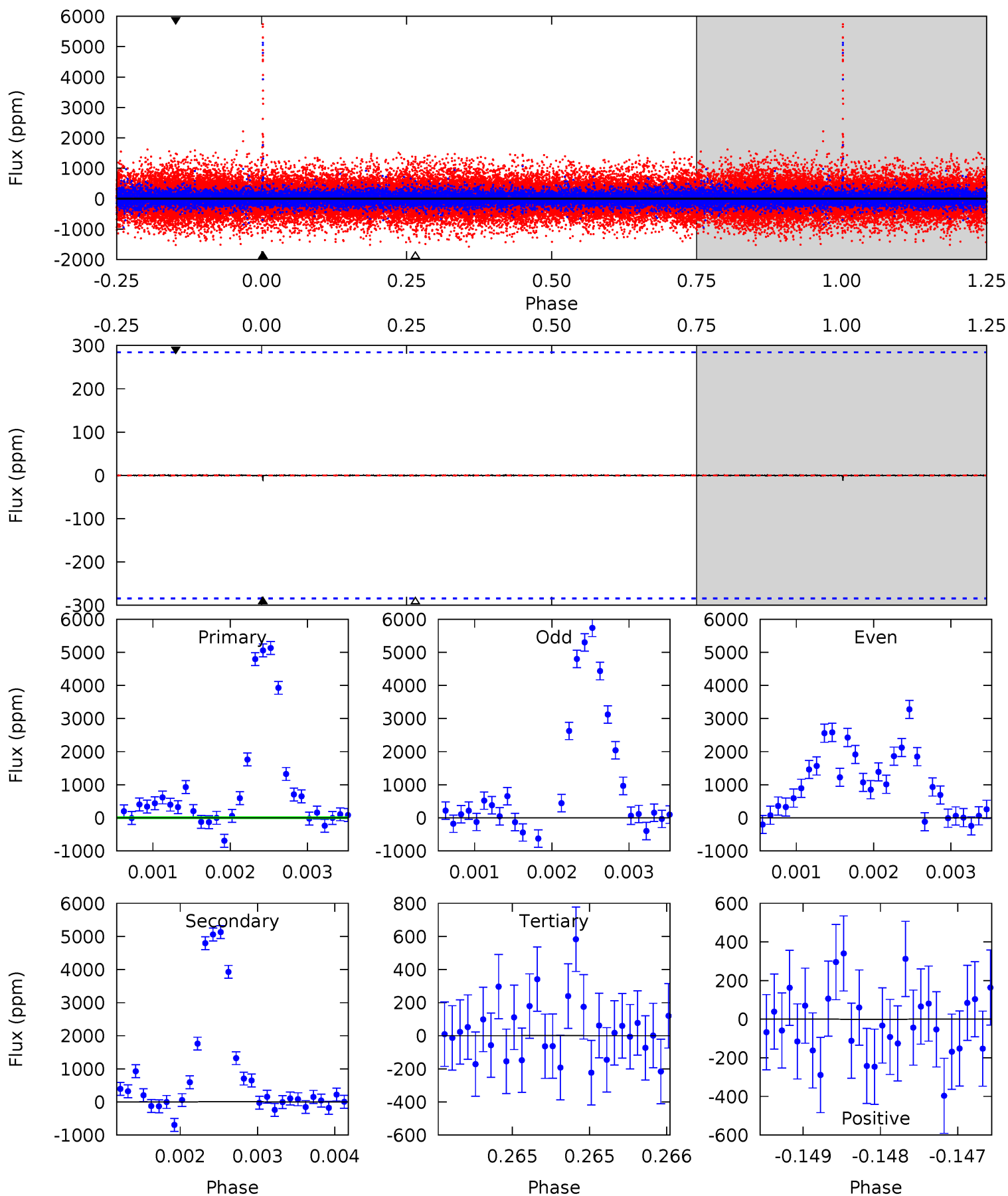
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.03	8.48	7.46	38.9	5.53	3.42	2.37	-3.43	-34.9	1.02	-30.4	0.29	0.84	0.82	0.29



Alt Model-Shift Uniqueness Test

011141029-04, P = 393.986282 Days, E = 27.922420 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.16	0.22	0.01	0.01	5.47	3.33	0.00	0.15	0.15	0.21	0.21	0.48	-0.36	0.06	0.16



Stellar Parameters For KIC 011141029

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4886^{+175}_{-175}	$4.667^{+0.056}_{-0.036}$	$-0.960^{+0.300}_{-0.300}$	$0.587^{+0.047}_{-0.042}$	$0.584^{+0.055}_{-0.025}$	$4.064^{+0.916}_{-0.559}$
	+4%/-4%	+1%/-1%	+31%/-31%	+8%/-7%	+9%/-4%	+23%/-14%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011141029-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1246 ± 147	$1.92^{+1.58}_{-1.23}$	246^{+10}_{-10}	5265^{+3902}_{-1138}	$148155^{+955684}_{-104655}$
Alt.	-11 ± 52	$1.32^{+1.22}_{-0.97}$	245^{+10}_{-10}	2524^{+1471}_{-6002}	1662^{+35120}_{-17352}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

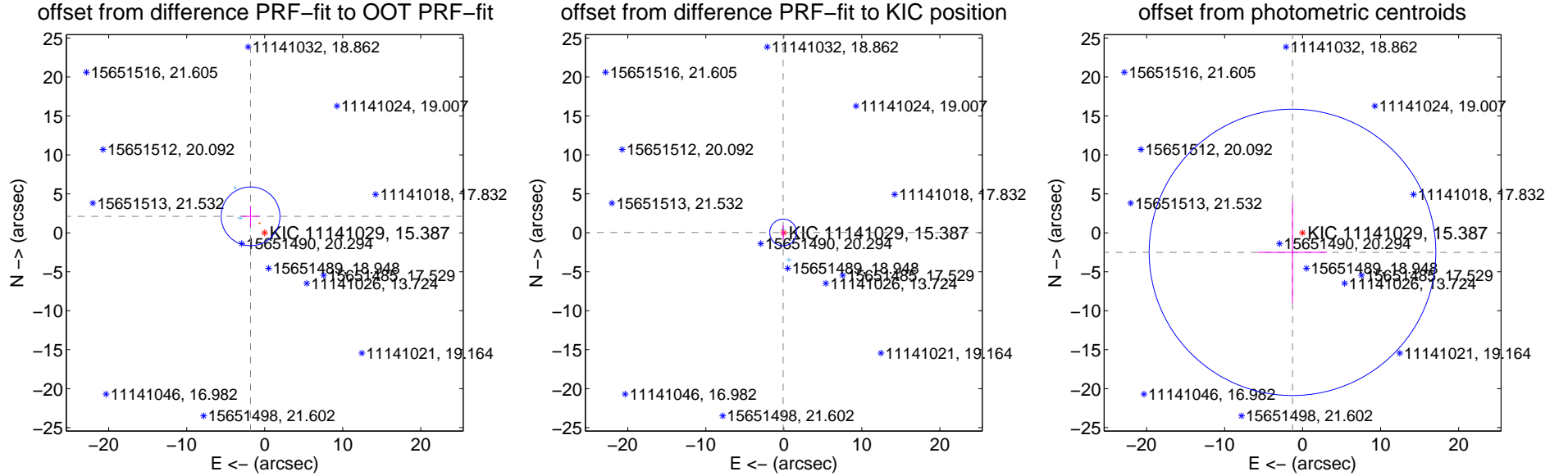
DV Centroid Data

Supplemental centroid analysis for 011141029-04. Kepler magnitude: 15.39. Transit SNR 2.30

There are 2 quarters with good PRF difference image offsets

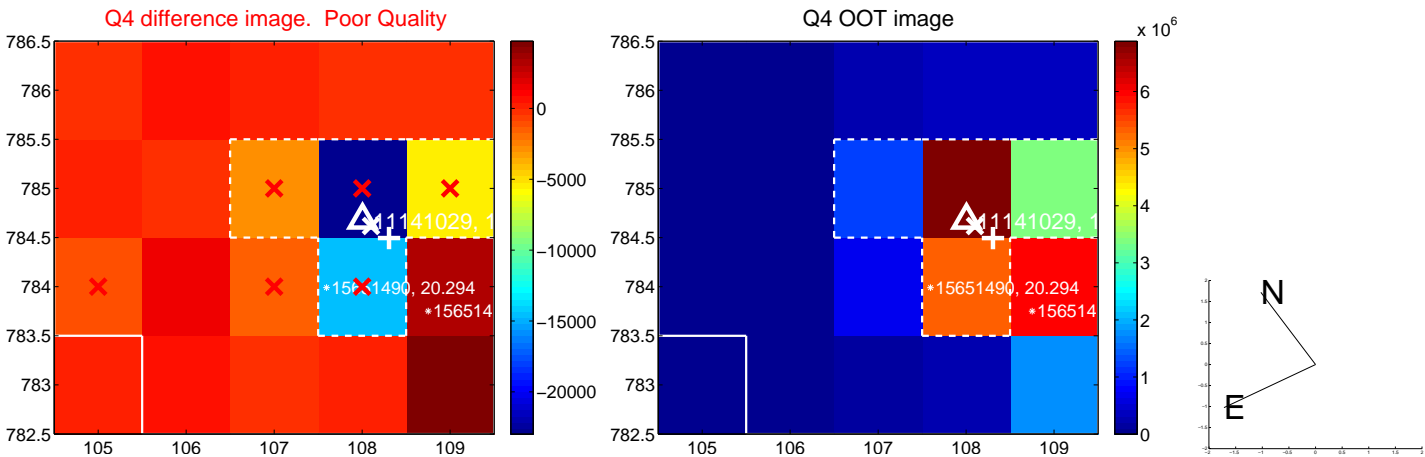
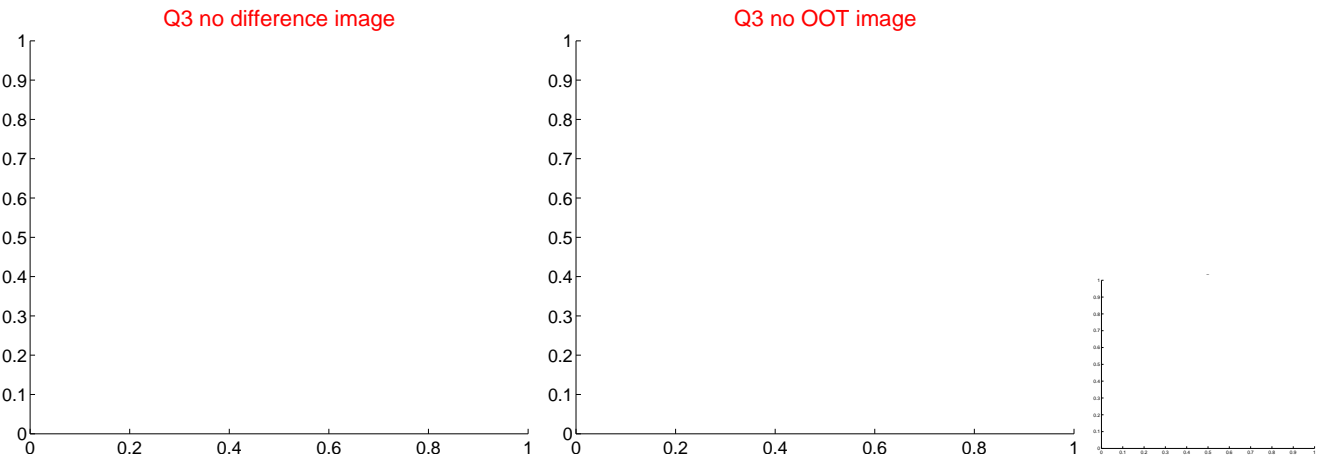
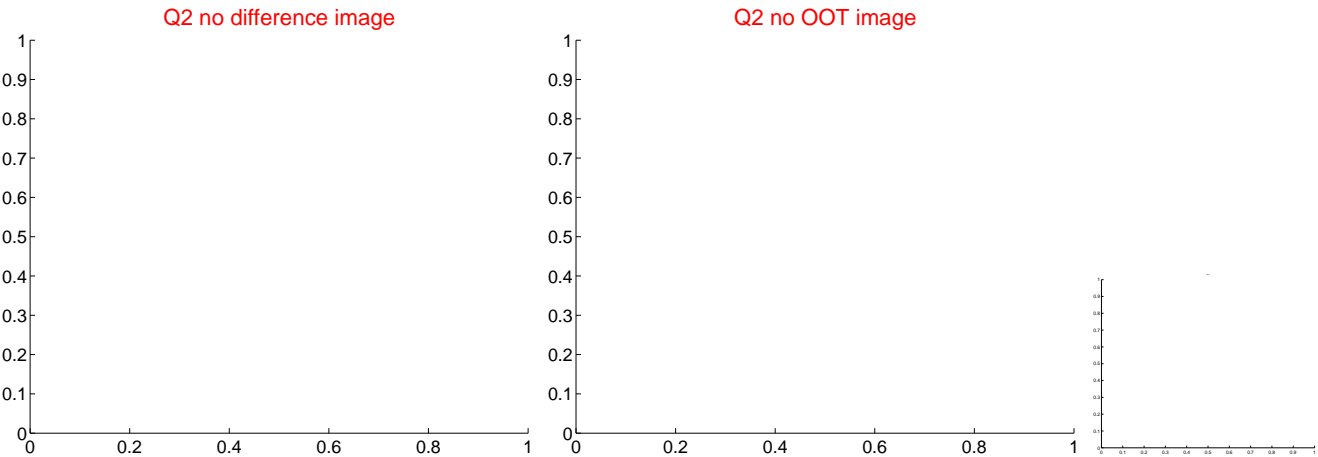
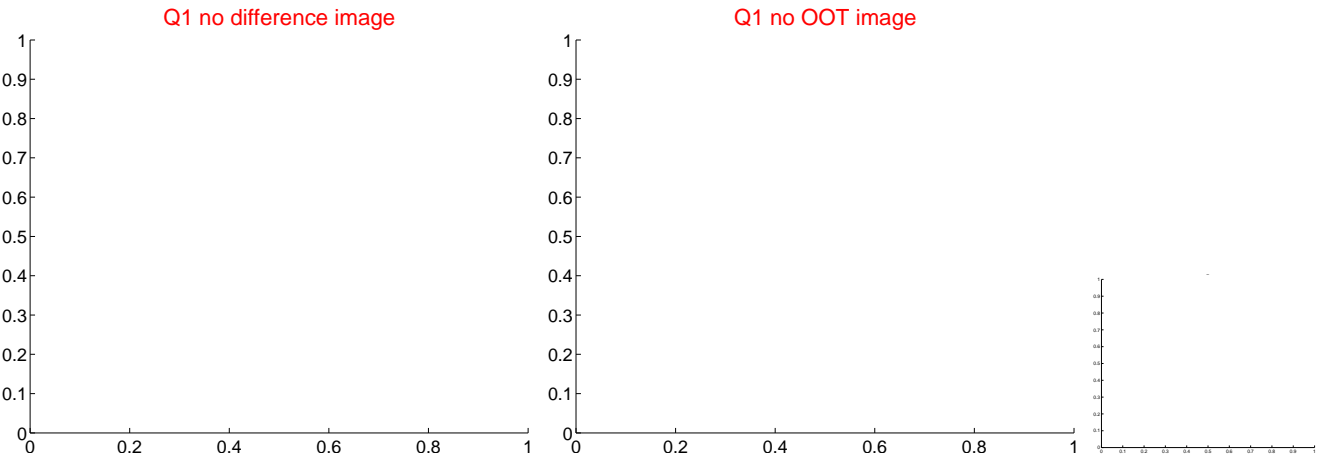
The OOT PRF centroid is offset from the target star catalog position by about 6.49 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.792 ± 1.257	2.22	1.820 ± 1.142	2.117 ± 1.335
PRF-fit source offset from KIC position	0.105 ± 0.570	0.18	0.095 ± 0.201	0.046 ± 0.920
photometric centroid source offset	2.82 ± 6.13	0.46	1.30 ± 4.42	-2.51 ± 6.51



Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

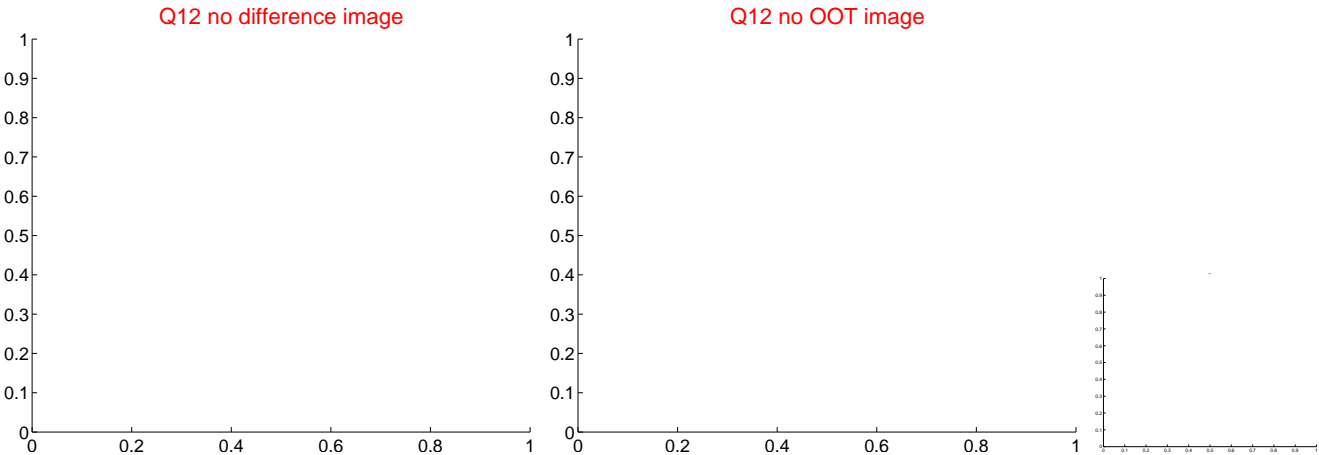
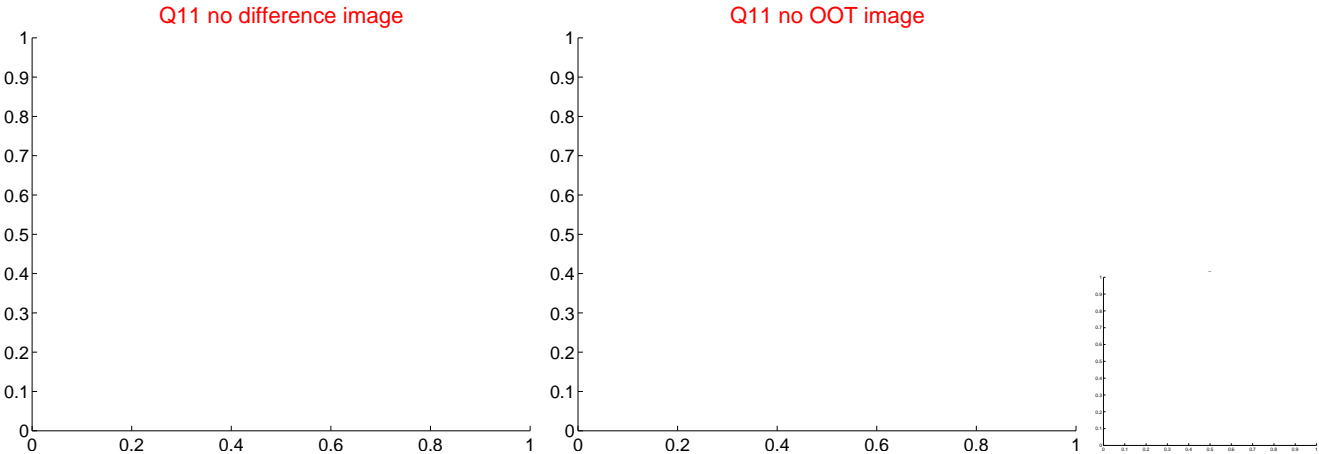
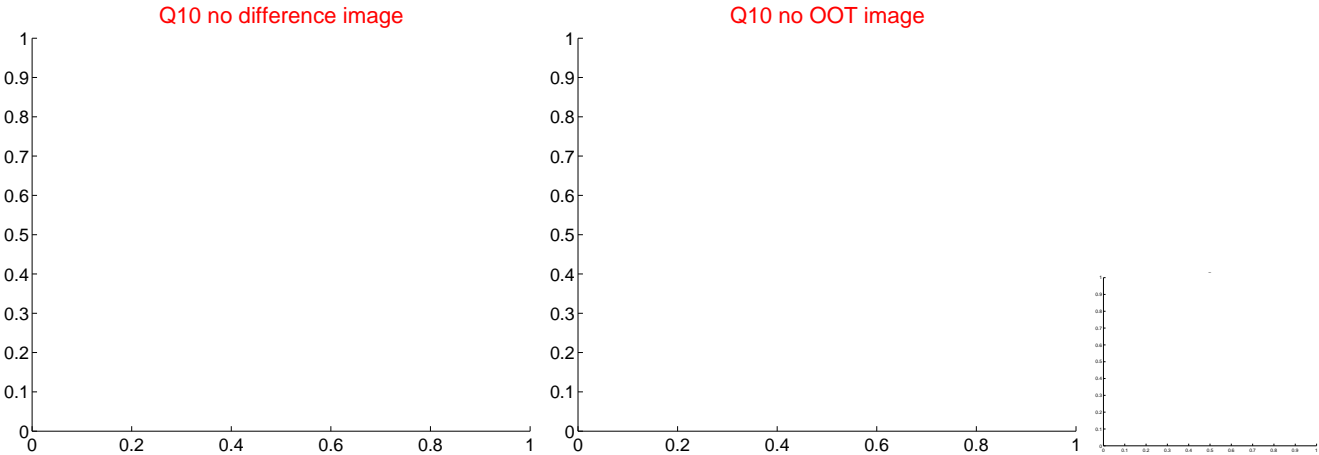
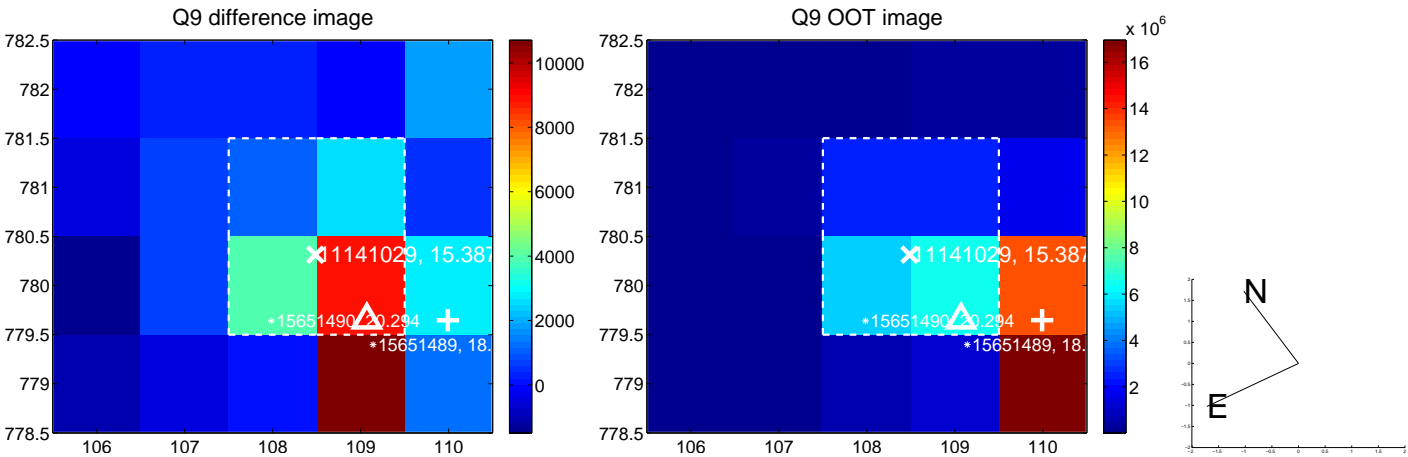
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



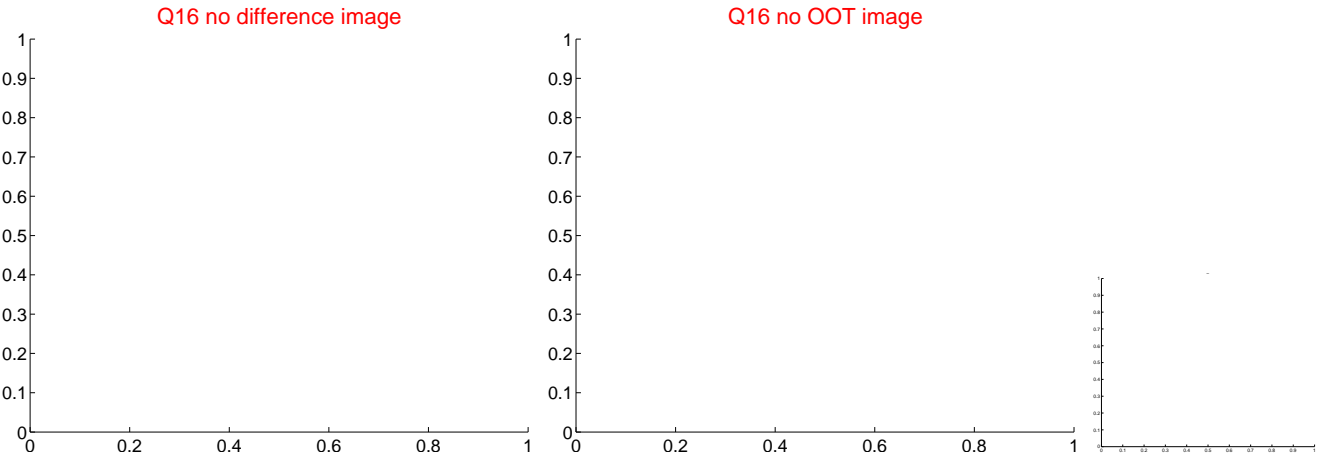
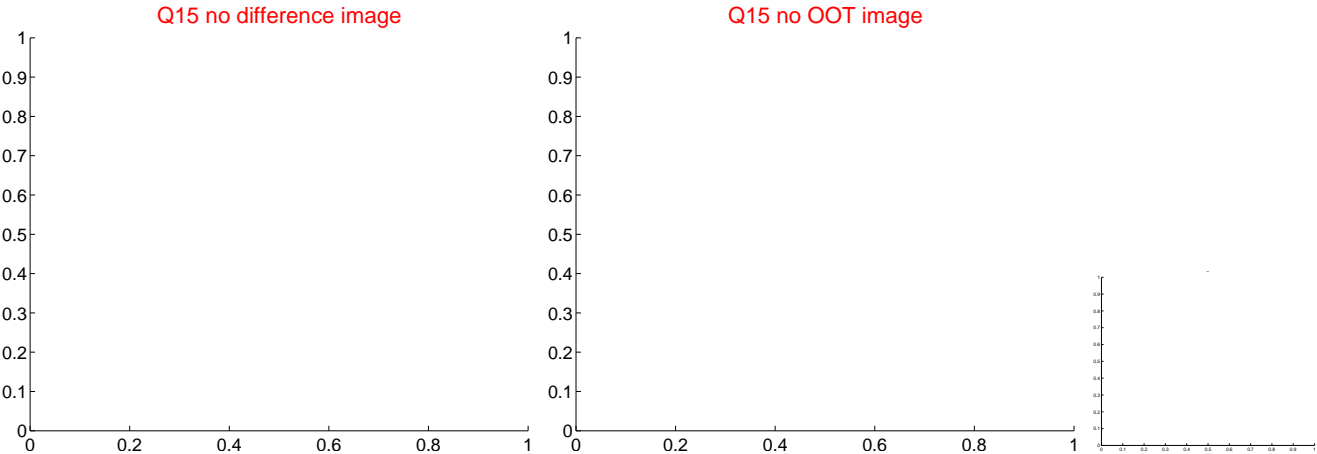
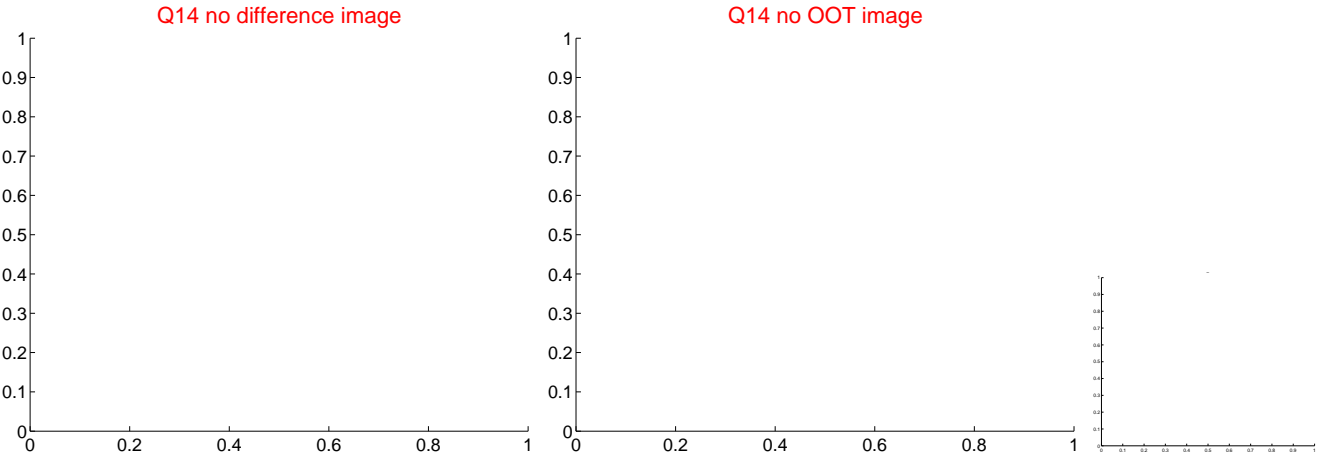
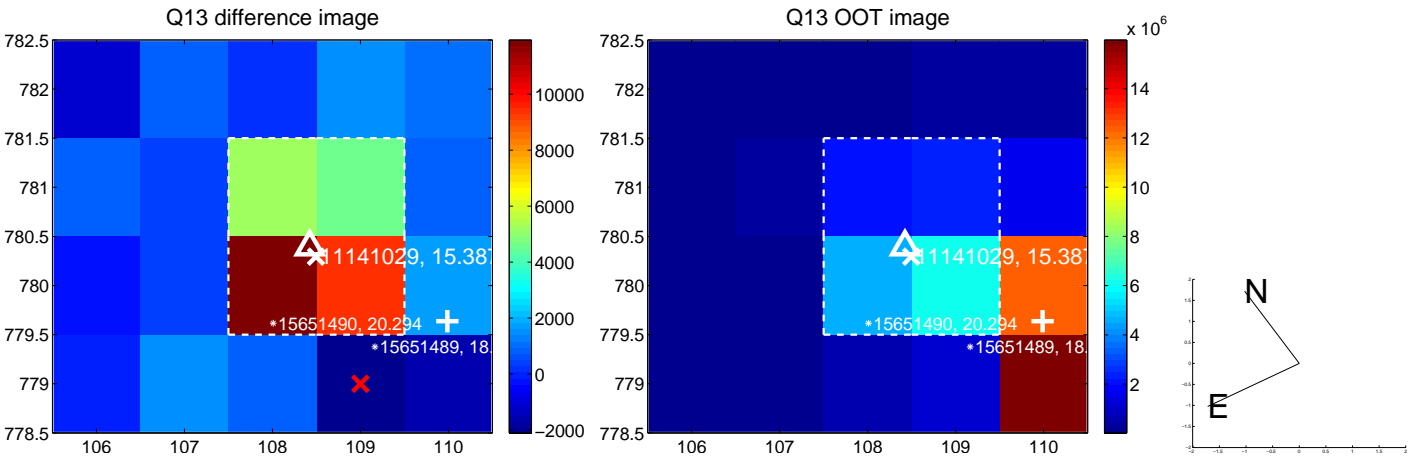
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



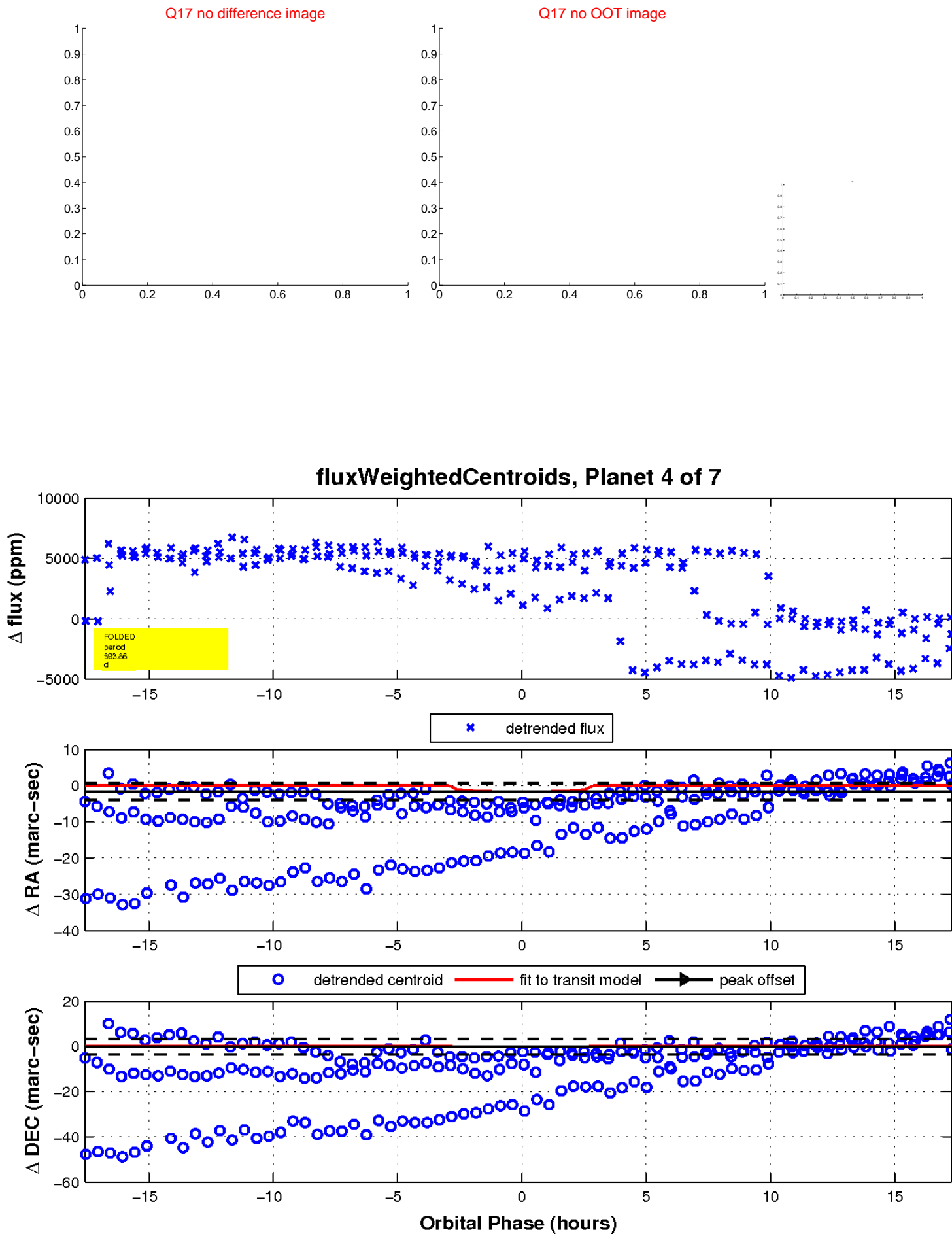
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

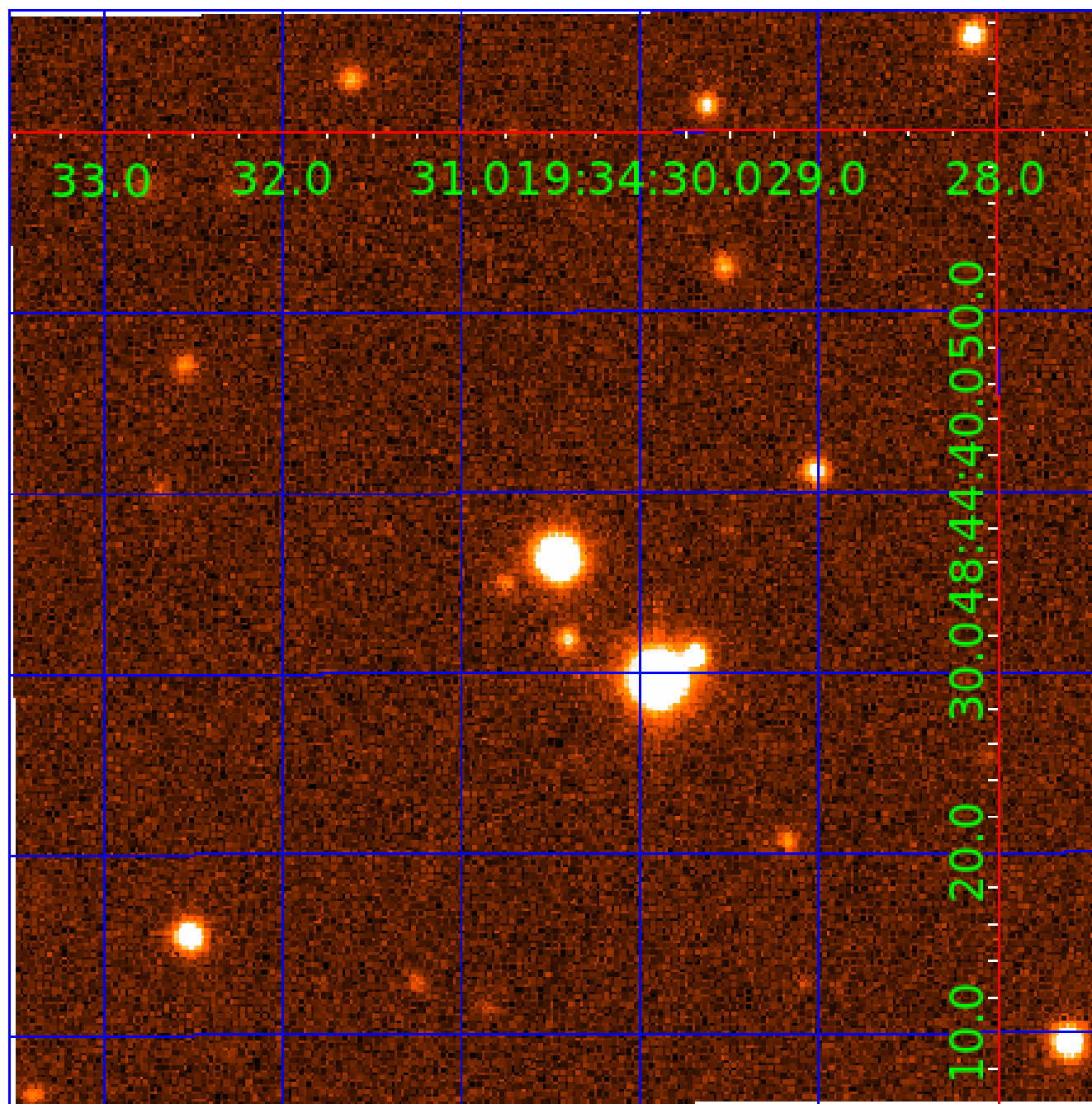


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 011141029

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
011141029-01	OBS	No	449.750067	409.590244	1874.7	3.377	18.3	7.6	0.59	4886	2.51	0.19
011141029-02	OBS	No	579.544957	393.628891	2121.8	4.030	15.5	8.7	0.59	4886	2.73	0.14
011141029-03	OBS	No	583.002322	371.101637	3078.2	8.087	16.8	7.9	0.59	4886	6.27	0.14
011141029-04	OBS	No	393.856592	421.807037	515.0	5.861	15.0	2.3	0.59	4886	1.46	0.23
011141029-05	OBS	No	393.986282	422.464455	1256.0	10.500	14.7	-1.0	0.59	4886	2.04	0.23
011141029-06	OBS	No	416.555121	499.098582	2995.0	12.590	13.5	8.5	0.59	4886	3.23	0.21
011141029-07	OBS	No	361.888147	254.296784	1568.4	3.065	10.3	6.5	0.59	4886	2.39	0.26

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011141029-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011141029-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011141029-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011141029-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011141029-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—SAME_NTL_PERIOD—CENT_NOFITS
011141029-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_KIC_POS
011141029-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

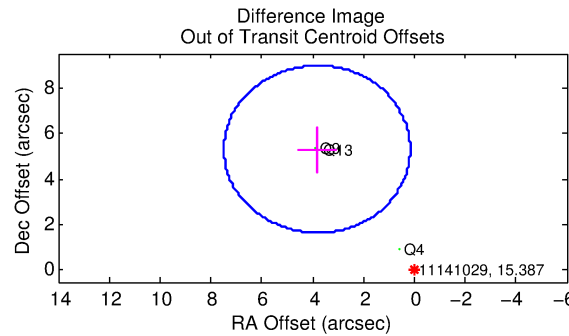
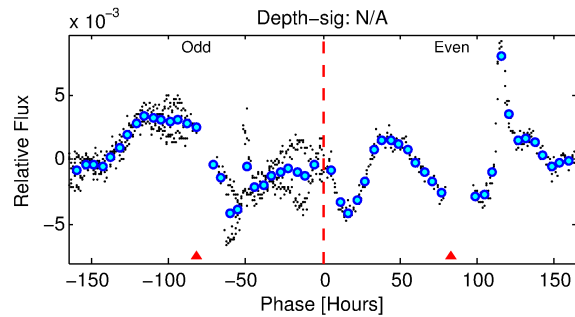
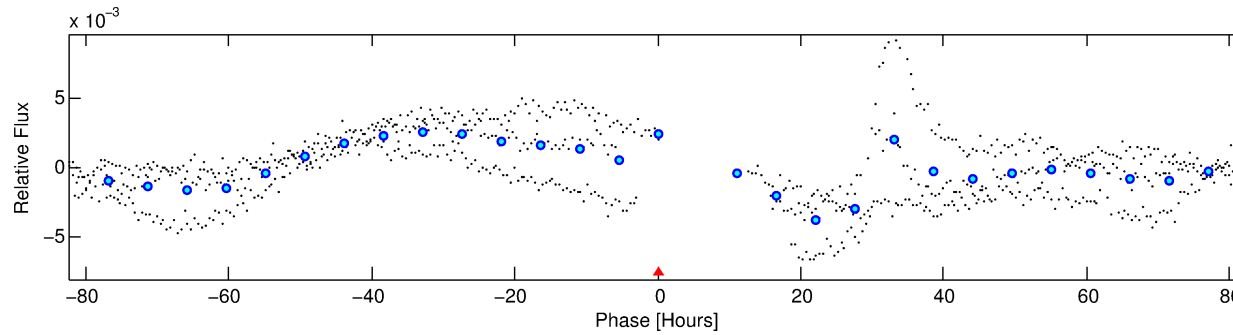
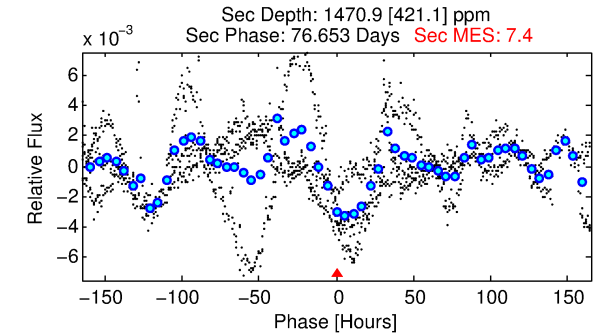
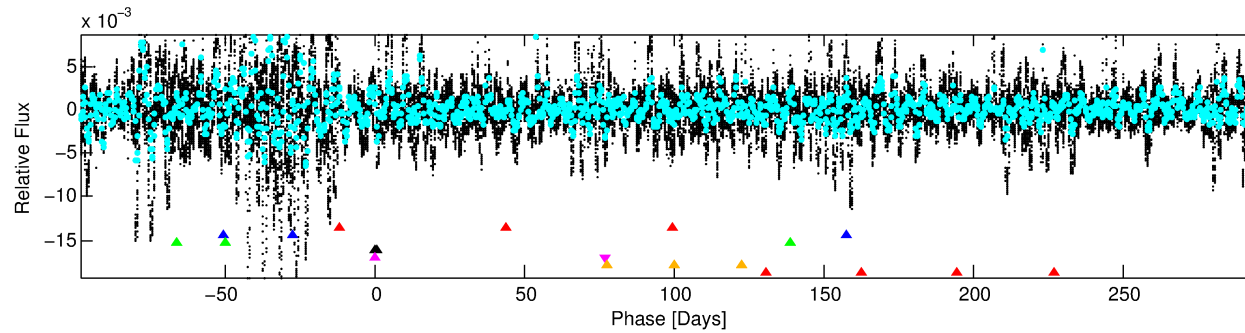
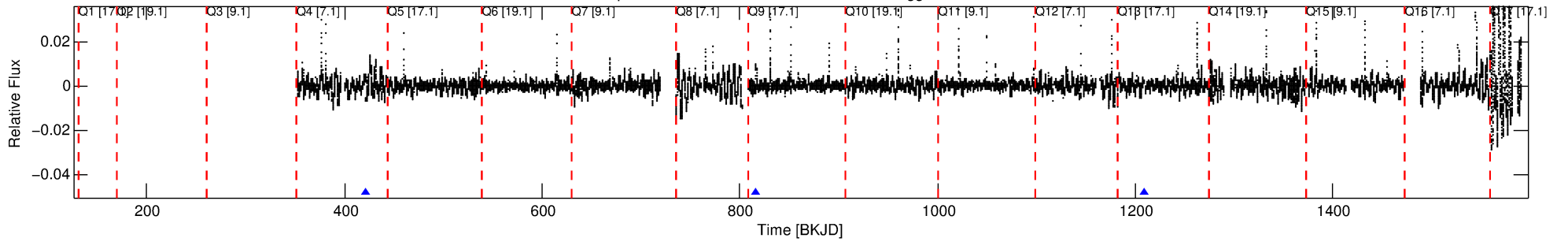
Ephemeris Match Information For 011141029-05

No Significant Match Found

DV One-Page Summary

KIC: 11141029 Candidate: 5 of 7 Period: 393.986 d

Kp: 15.39 R*: 0.59 Rs Teff: 4886.0 K Logg: 4.67 Fe/H: -0.960



TPS TCE Results:

Period = 393.98628 d
Epoch = 422.4645 BKJD

DV fit results are unavailable

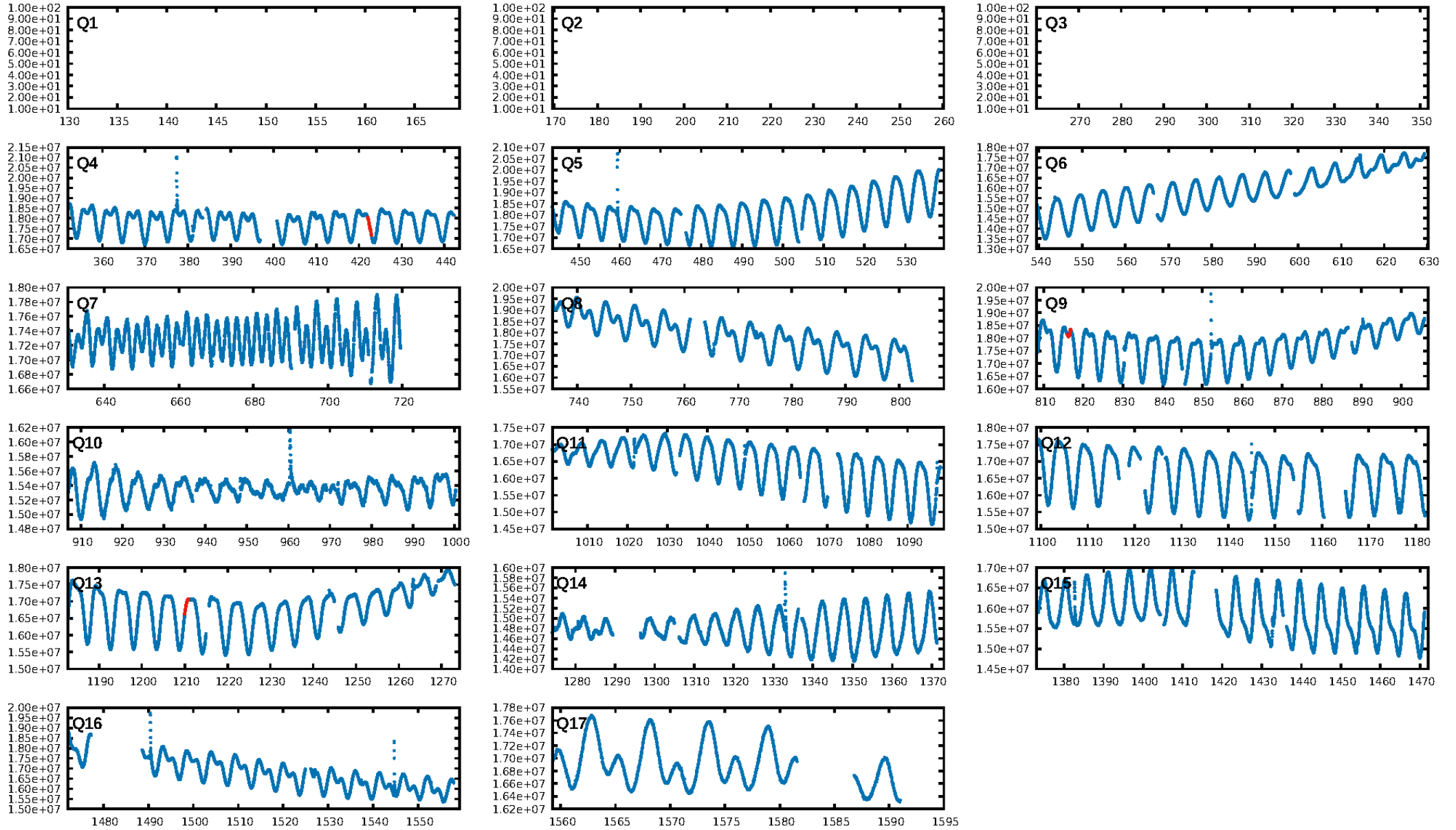
DV Diagnostic Results:

ShortPeriod-sig: 20.4% [0.26 σ]
LongPeriod-sig: 100.0% [33.04 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.10e-14
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 13.24
Centroid-sig: 0.3%
Centroid-so: 4.863 arcsec [8.69 σ]
OotOffset-rm: 6.545 arcsec [5.36 σ]
KicOffset-rm: 0.068 arcsec [0.91 σ]
OotOffset-st: 0/0/1/2 [3]
KicOffset-st: 0/0/1/2 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 0.00 [0/3]

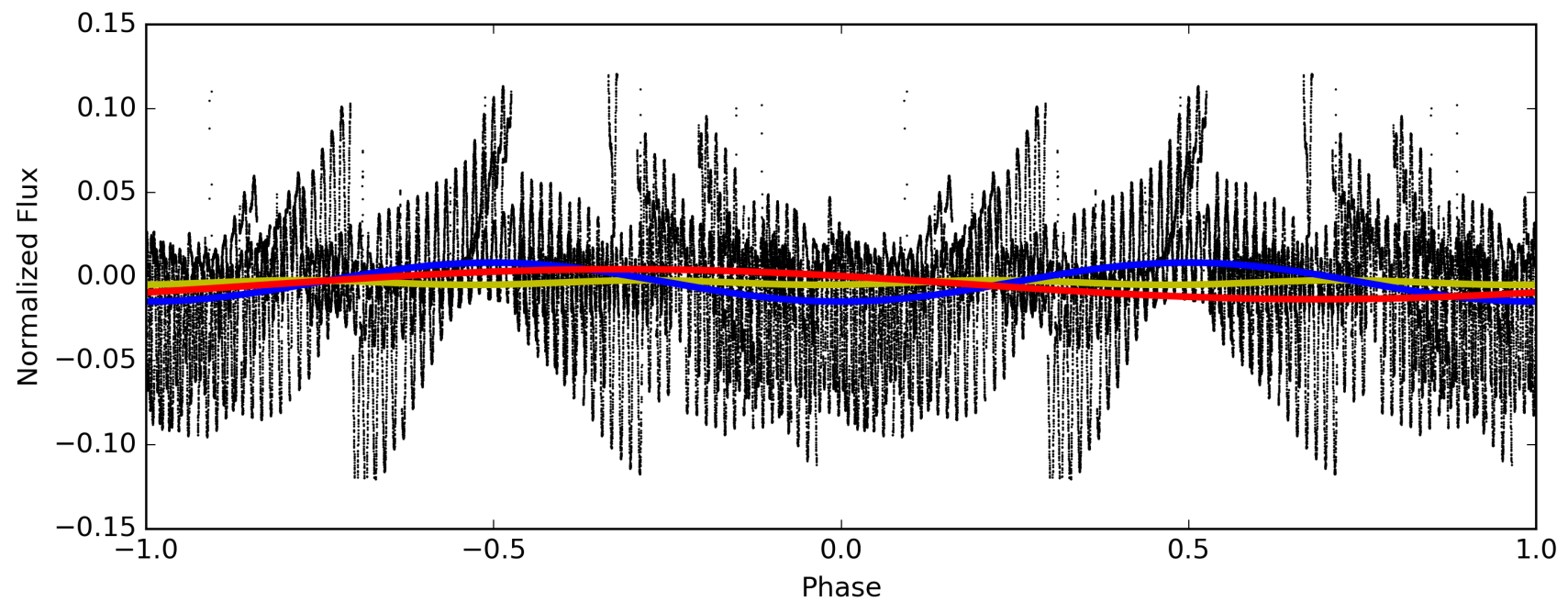
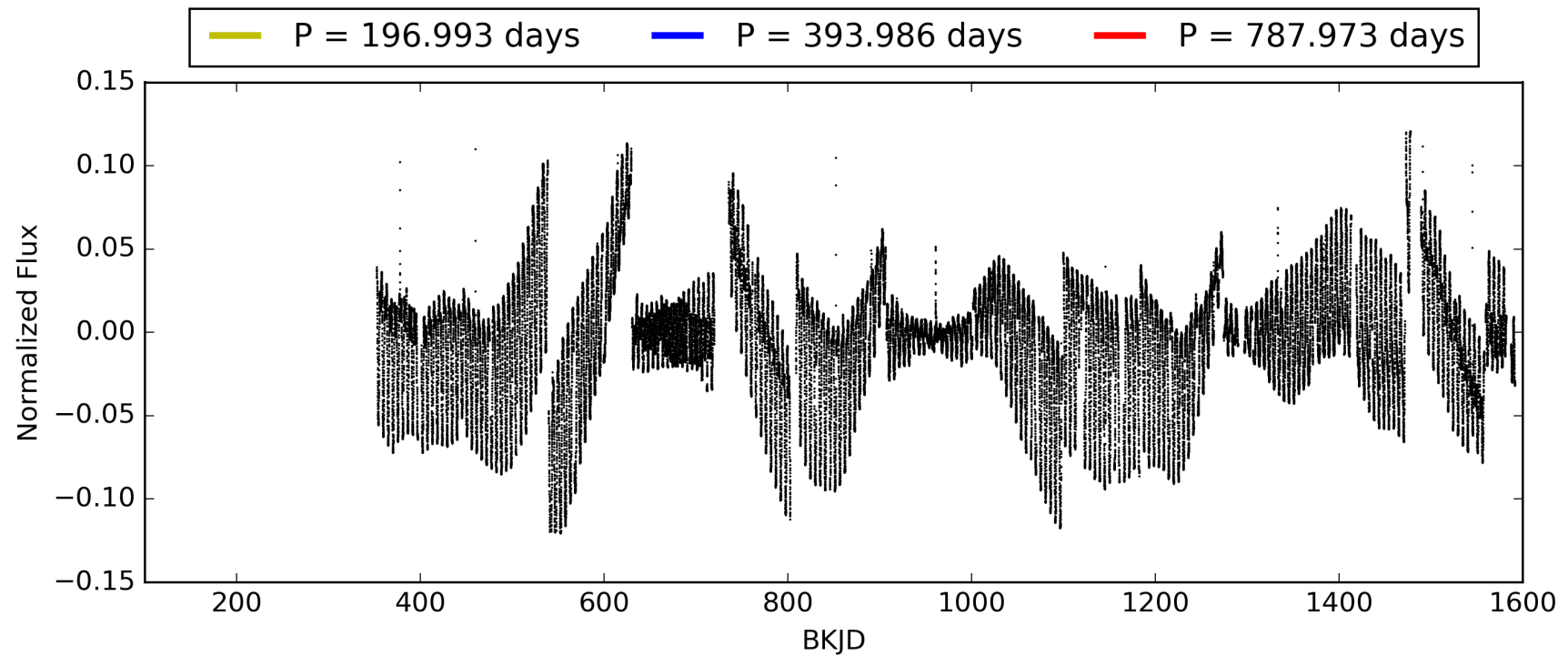
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:42:00 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 011141029-05, PDC Light Curves

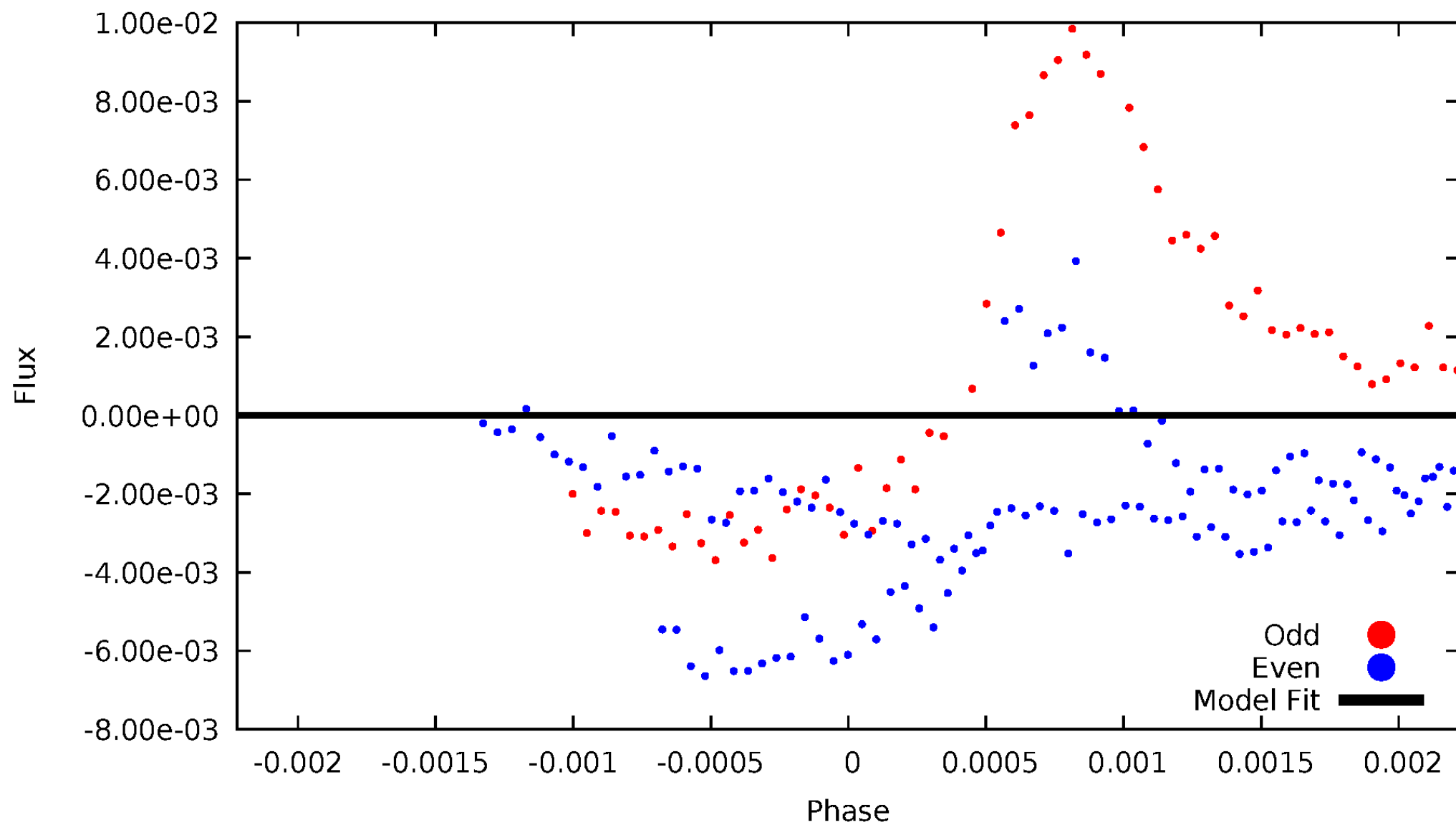


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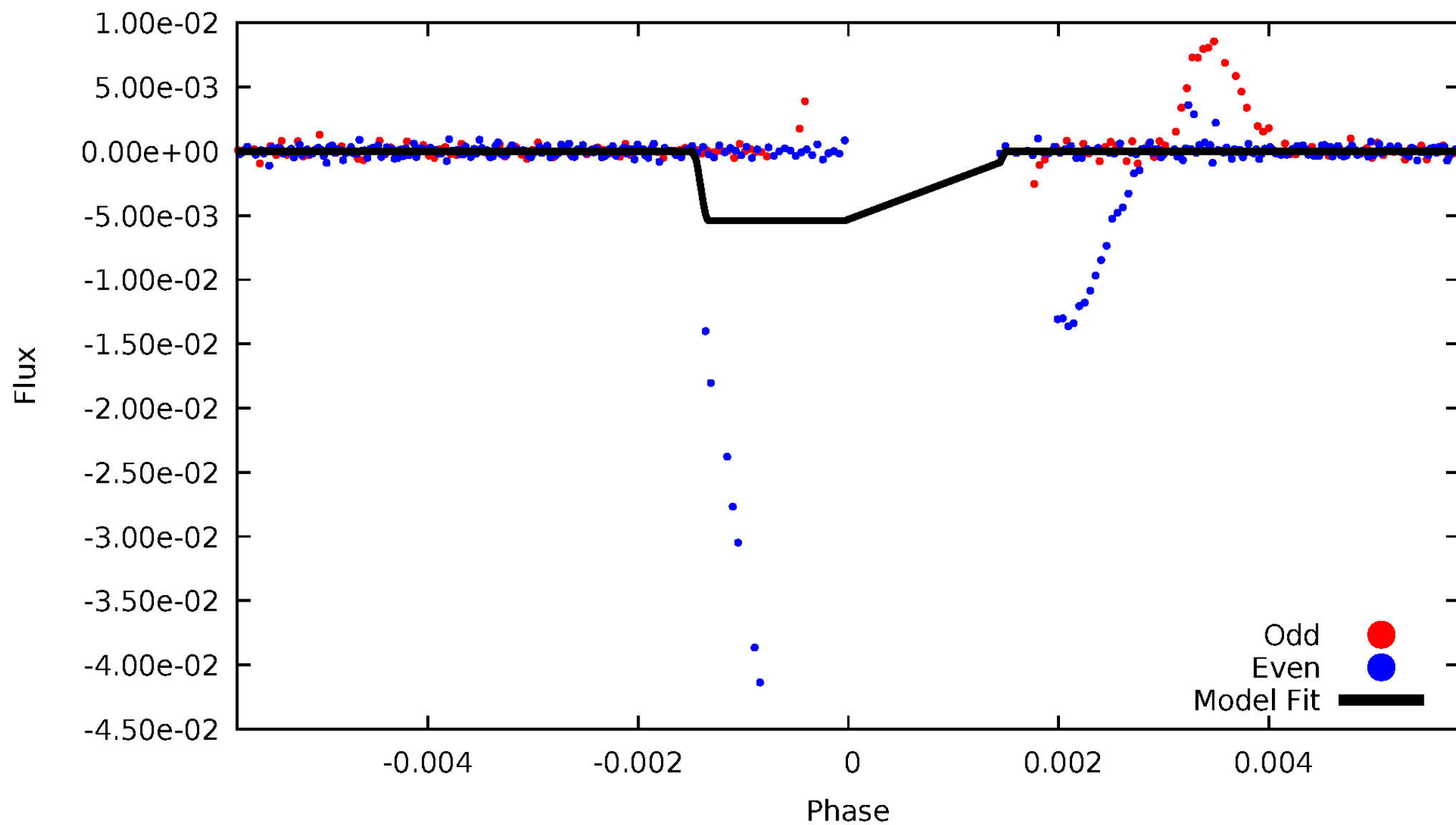
DV Odd/Even

TCE 011141029-05

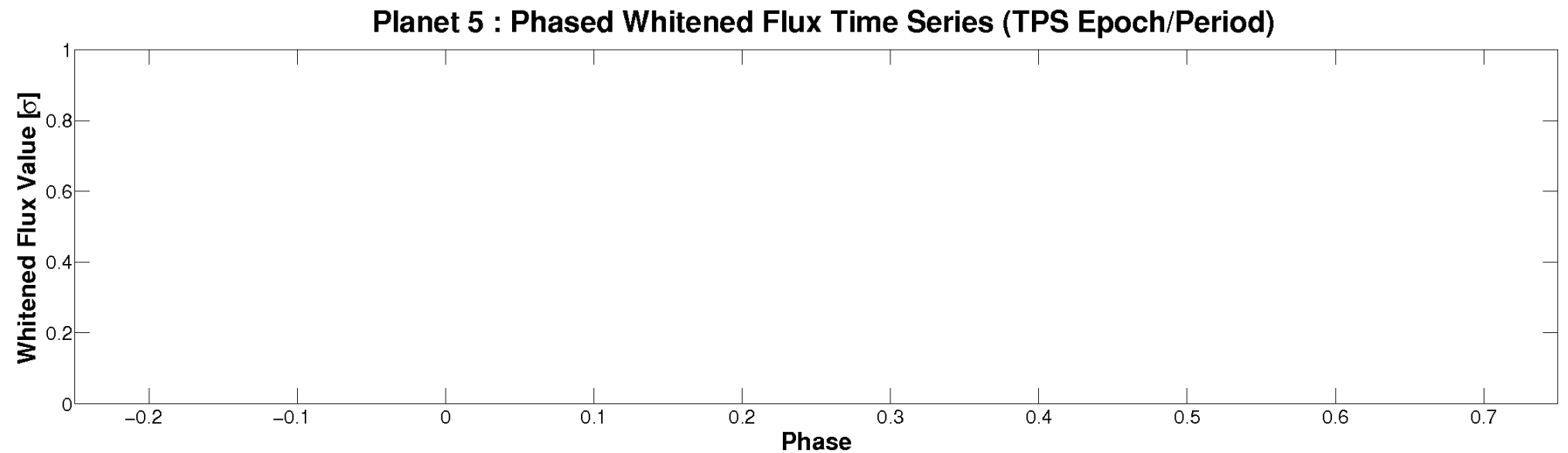
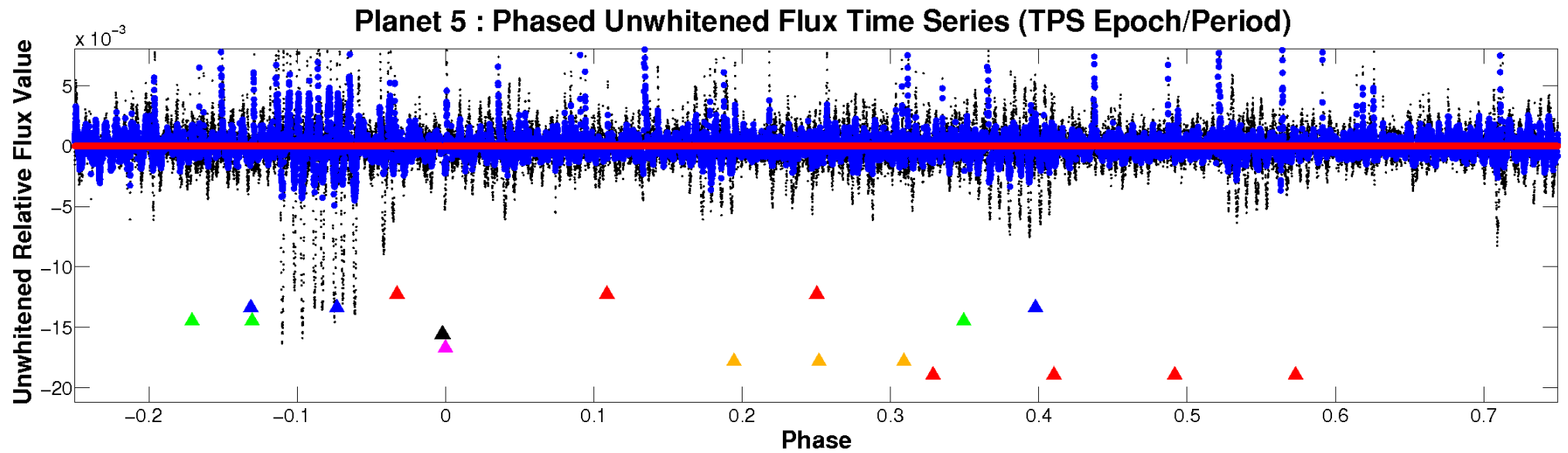


ALT Odd/Even

TCE 011141029-05

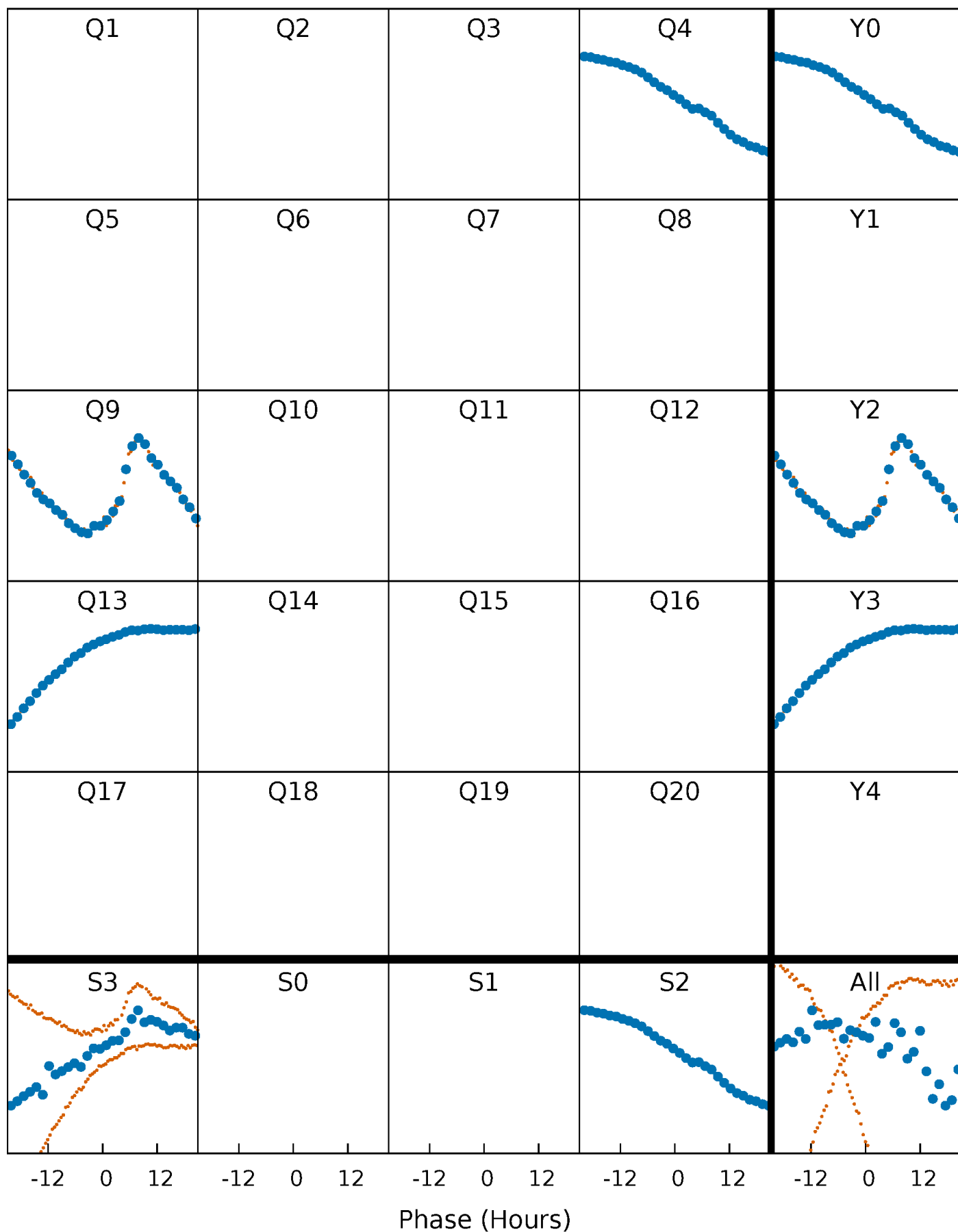


Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 011141029-05 $P=393.986282$ Days $T_0=422.464455$ (BKJD)



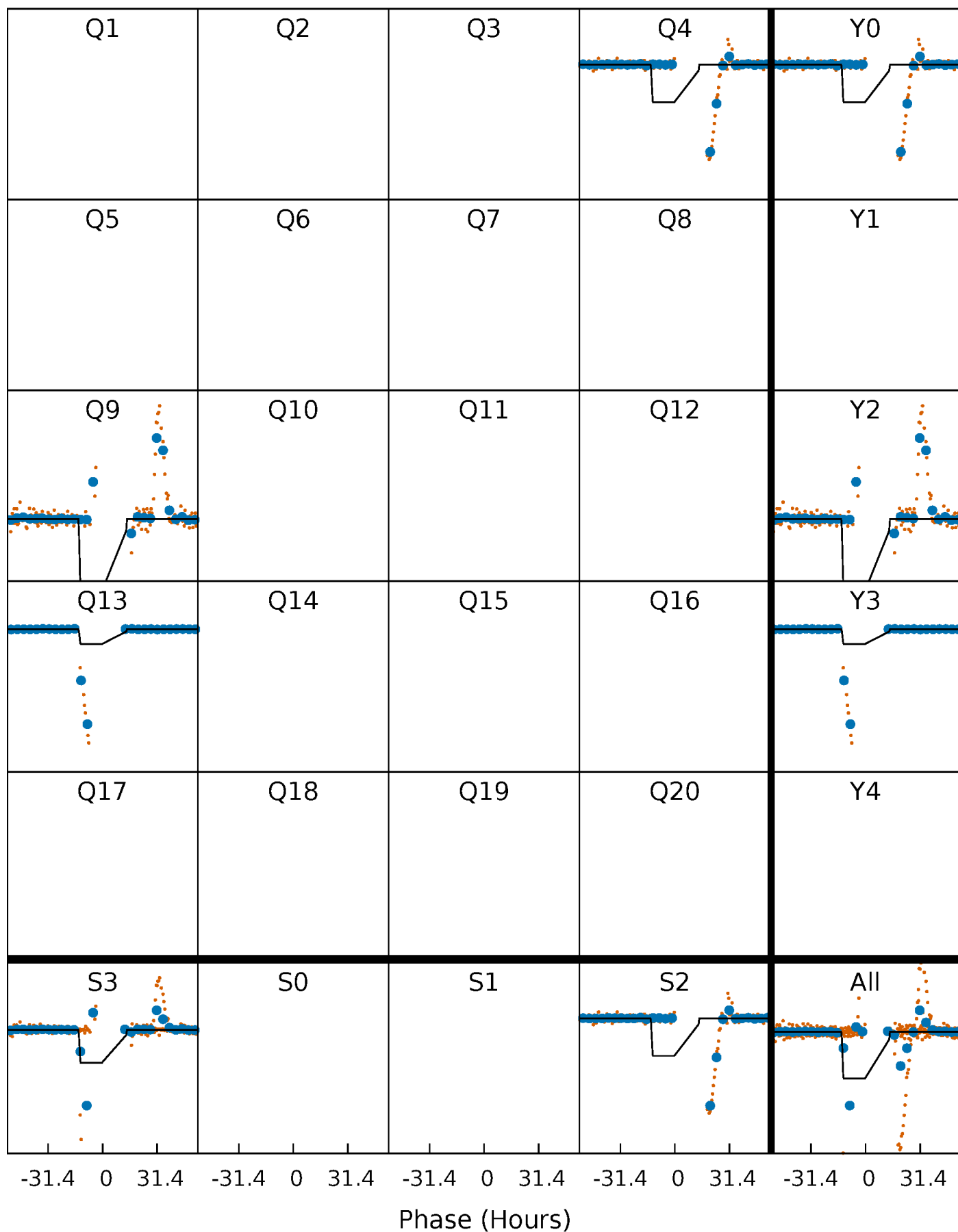
DV Quarter-Phased Transit Curves

TCE 011141029-05 $P=393.986282$ Days $T_0=422.464455$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

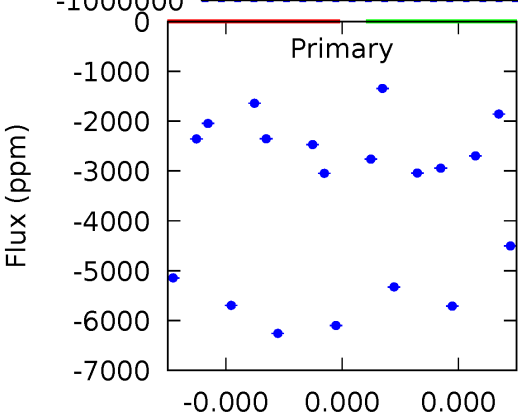
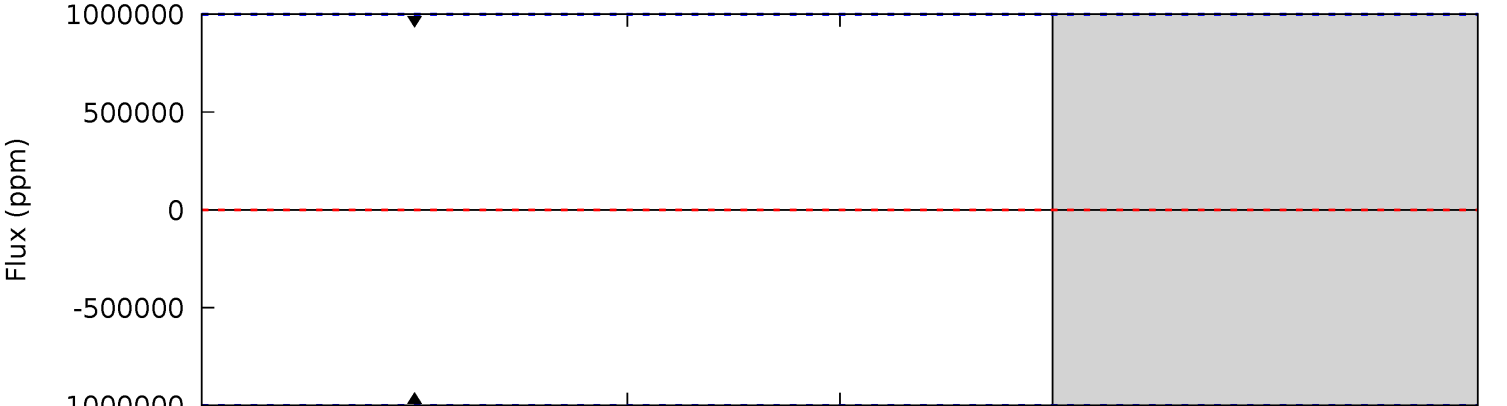
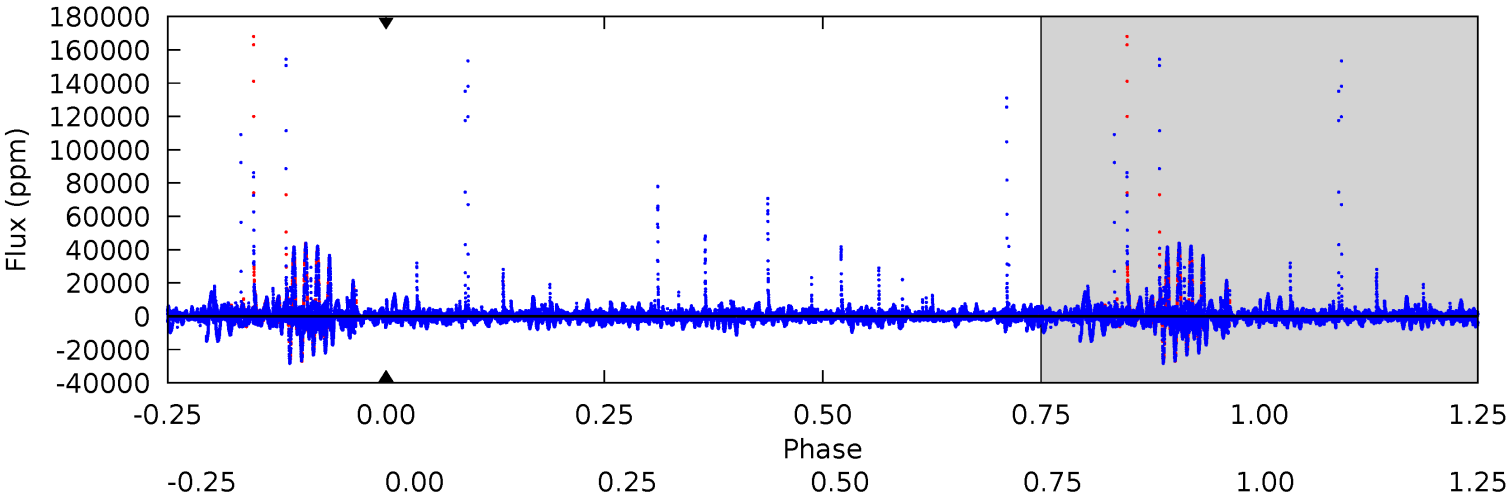
TCE 011141029-05 P=393.986282 Days $T_0=421.414481$ (BKJD)



DV Model-Shift Uniqueness Test

011141029-05, P = 393.986282 Days, E = 28.478173 Days

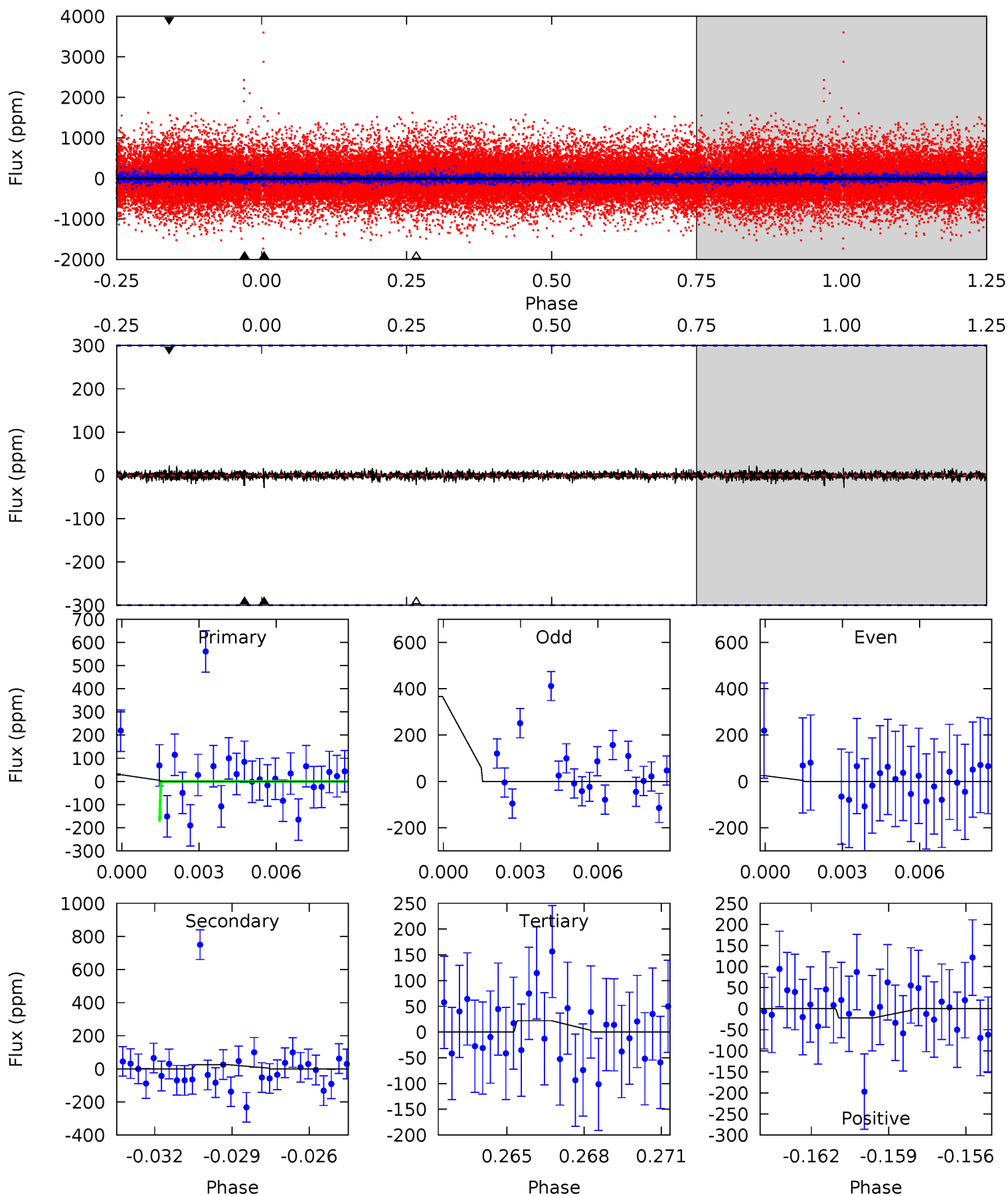
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

011141029-05, P = 393.986282 Days, E = 27.428199 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.51	0.43	0.39	0.39	5.26	2.97	0.08	0.12	0.12	0.04	0.04	2.78	1275	0.43	0.38



Stellar Parameters For KIC 011141029

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4886^{+175}_{-175}	$4.667^{+0.056}_{-0.036}$	$-0.960^{+0.300}_{-0.300}$	$0.587^{+0.047}_{-0.042}$	$0.584^{+0.055}_{-0.025}$	$4.064^{+0.916}_{-0.559}$
	+4%/-4%	+1%/-1%	+31%/-31%	+8%/-7%	+9%/-4%	+23%/-14%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011141029-05 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$5.22^{+4.79}_{-3.58}$	245^{+10}_{-10}	4428^{+10300}_{-15826}	$63780^{+3679459}_{-2119516}$
Alt.	-24 ± 57	$6.27^{+5.64}_{-4.03}$	245^{+10}_{-10}	1989^{+618}_{-4110}	184^{+1923}_{-537}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

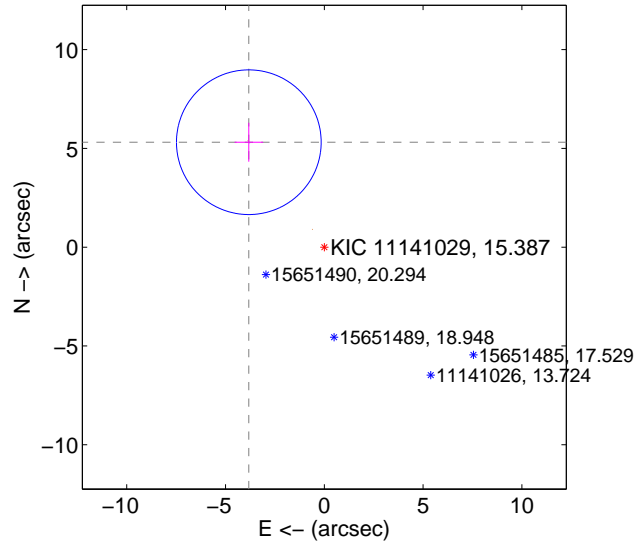
Supplemental centroid analysis for 011141029-05. Kepler magnitude: 15.39. Transit SNR -1.00

There are 1 quarters with good PRF difference image offsets

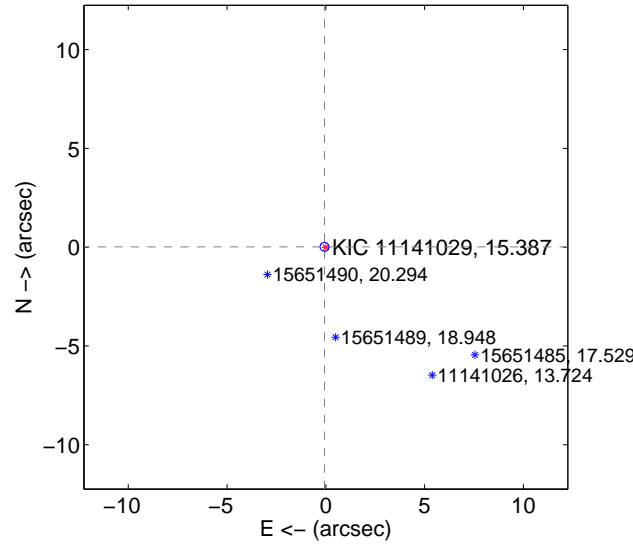
The OOT PRF centroid is offset from the target star catalog position by about 6.47 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.545 ± 1.221	5.36	3.822 ± 0.723	5.314 ± 0.986
PRF-fit source offset from KIC position	0.068 ± 0.075	0.91	0.066 ± 0.075	0.017 ± 0.070
photometric centroid source offset	4.86 ± 0.56	8.69	-2.74 ± 0.42	-4.02 ± 0.61

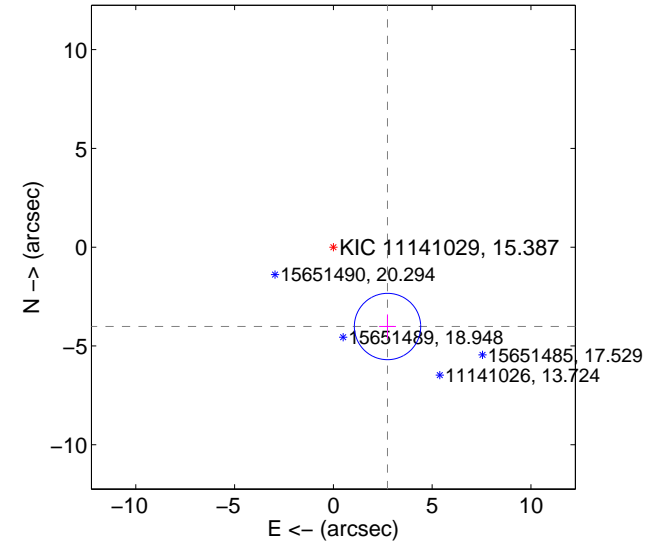
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

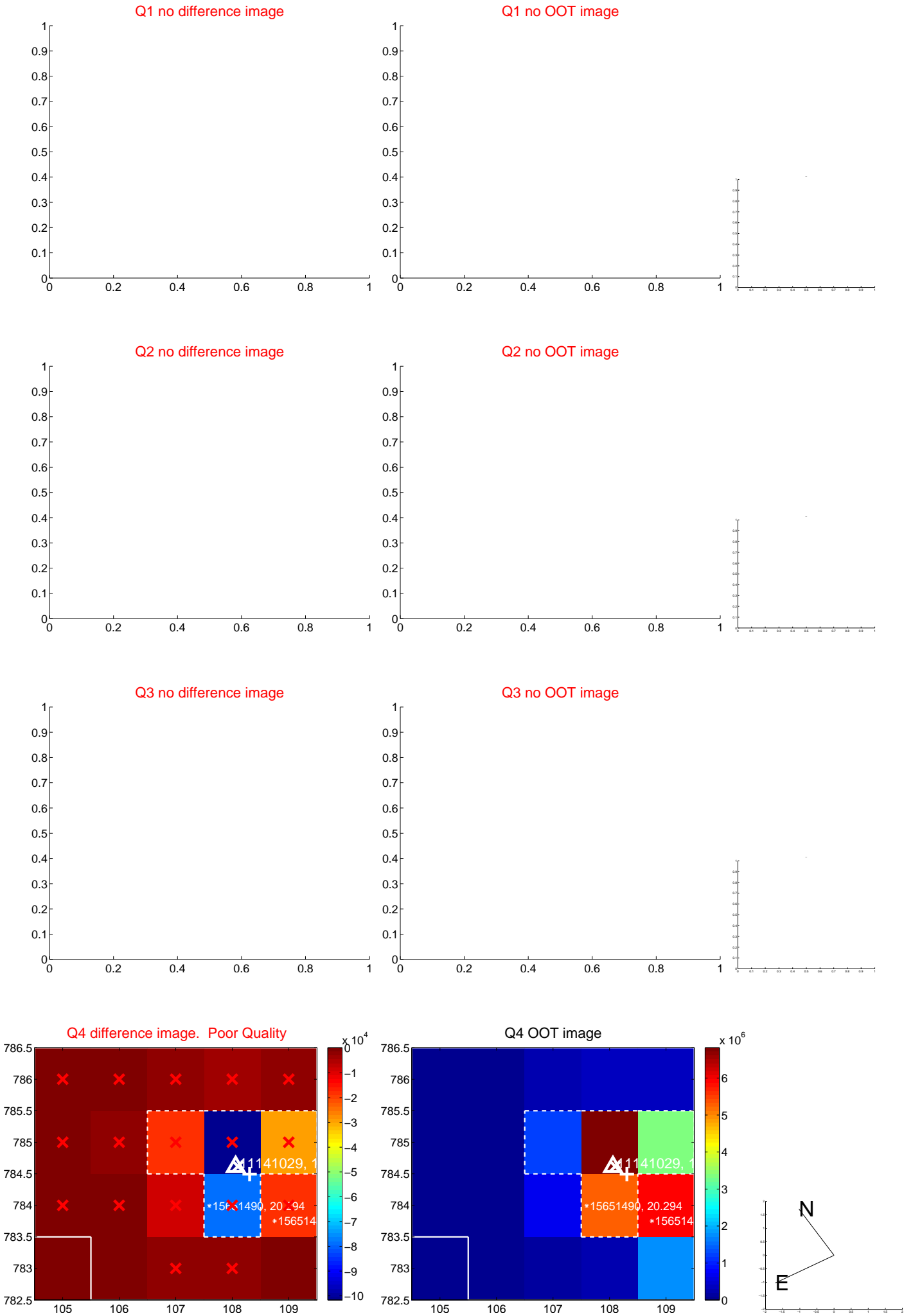


offset from photometric centroids



Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

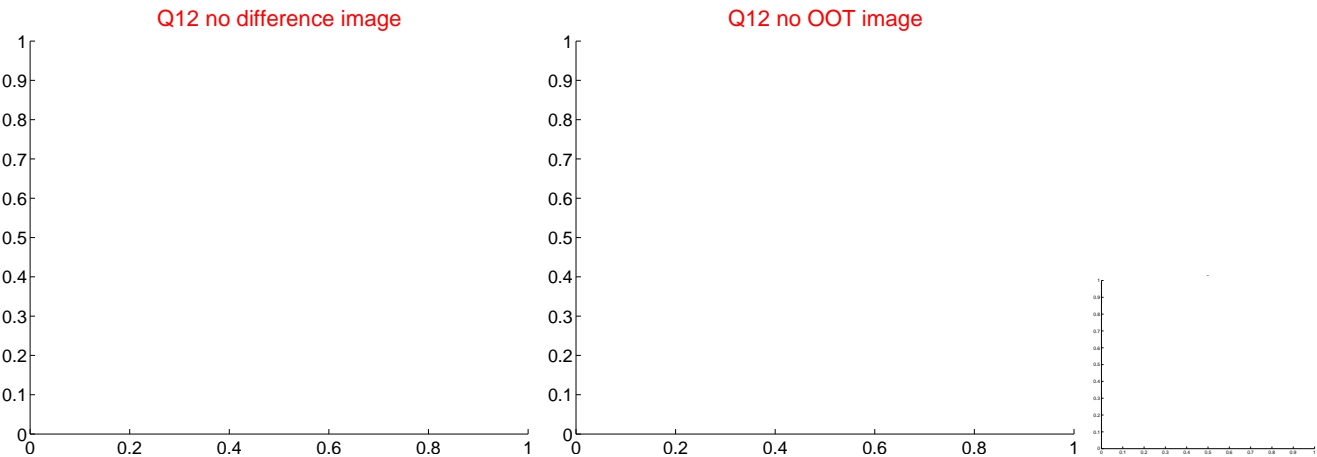
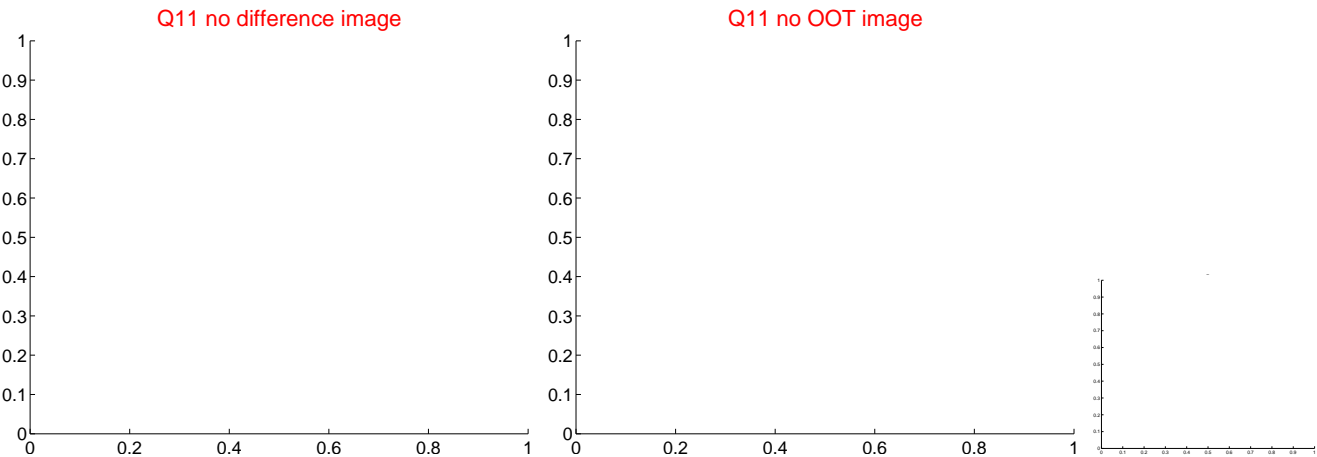
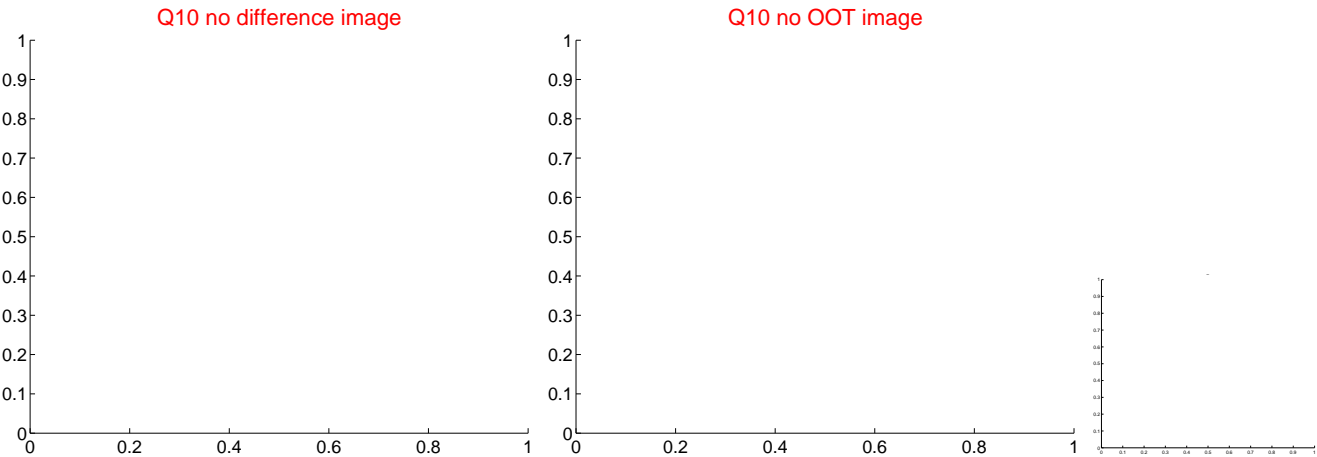
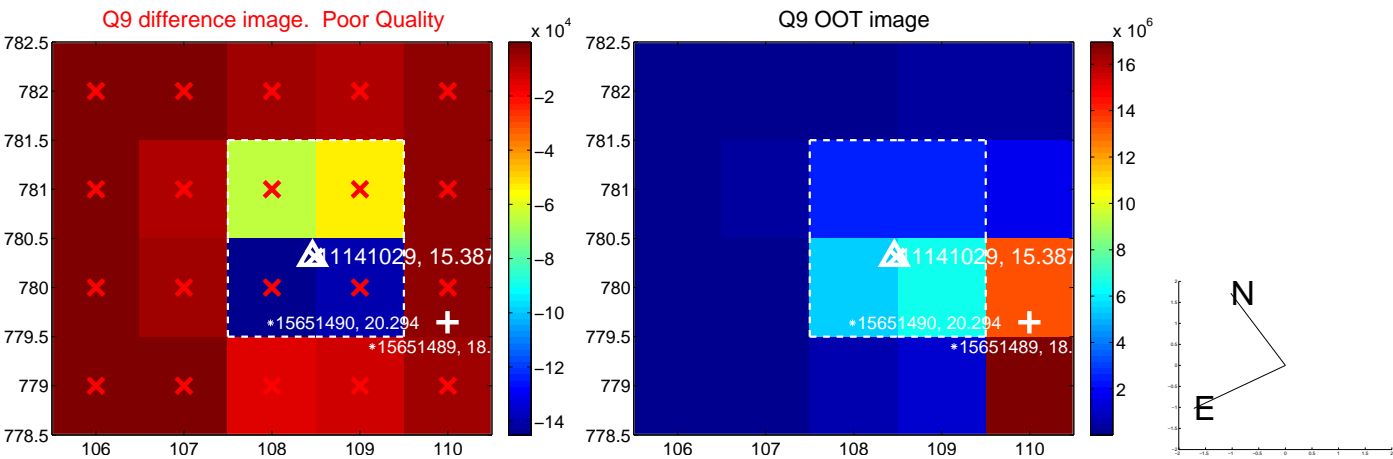
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



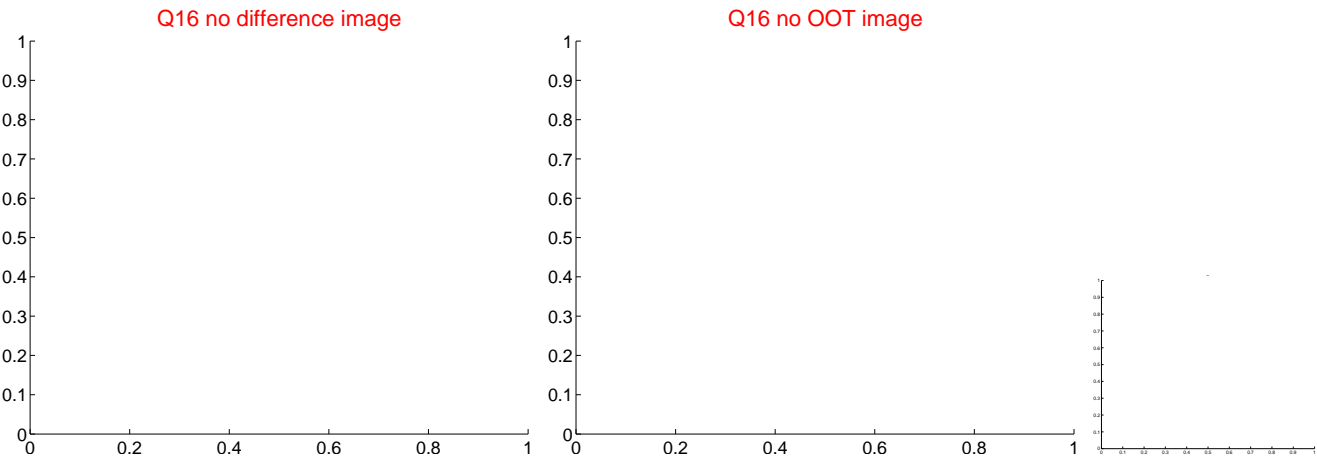
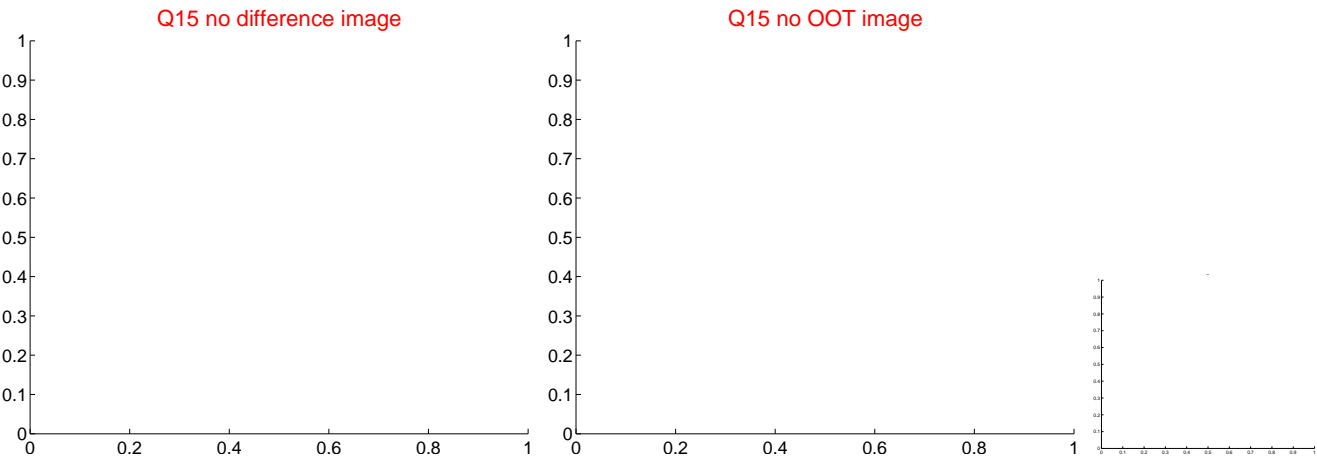
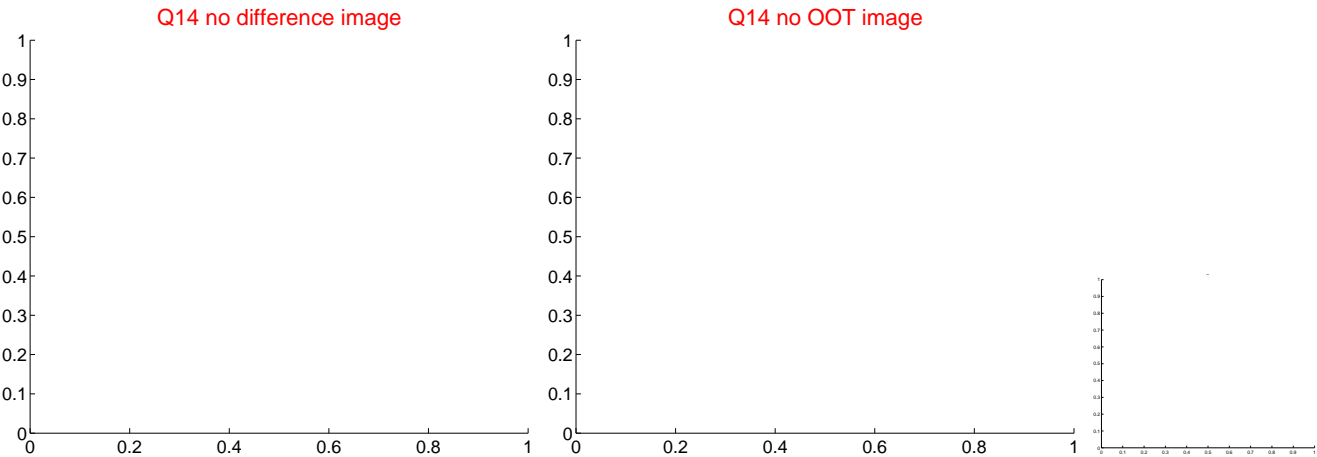
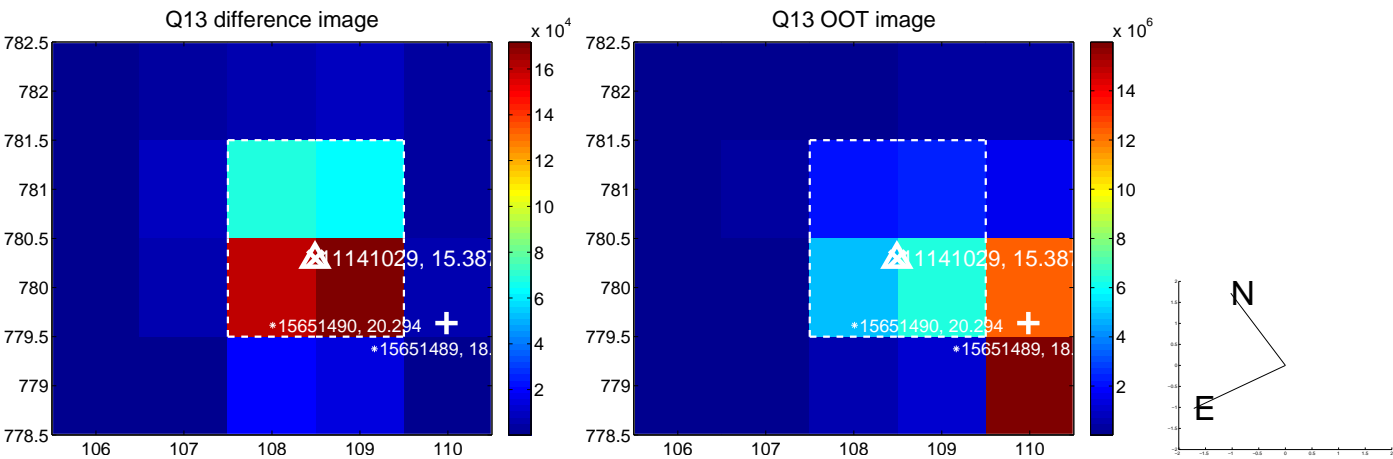
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



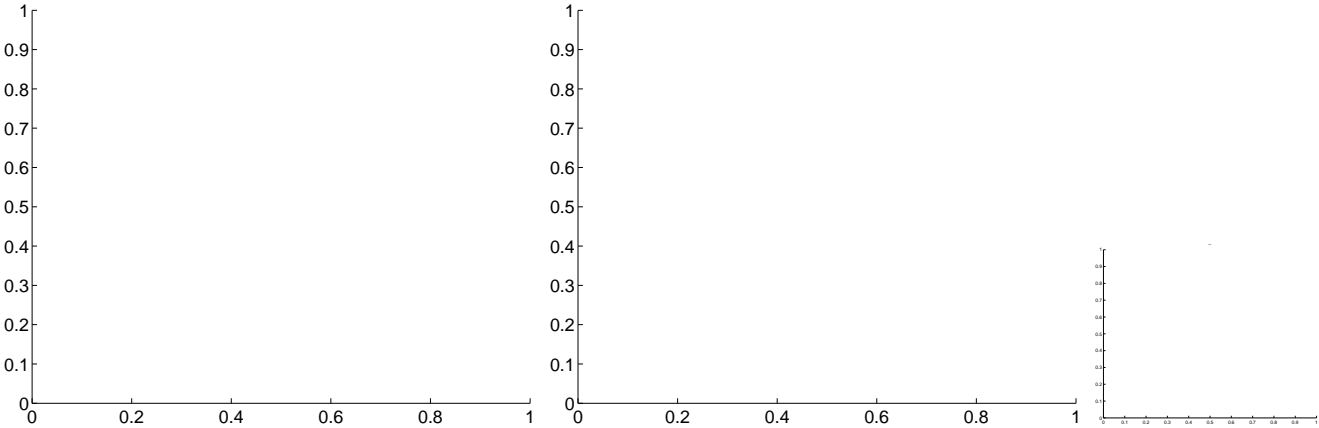
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



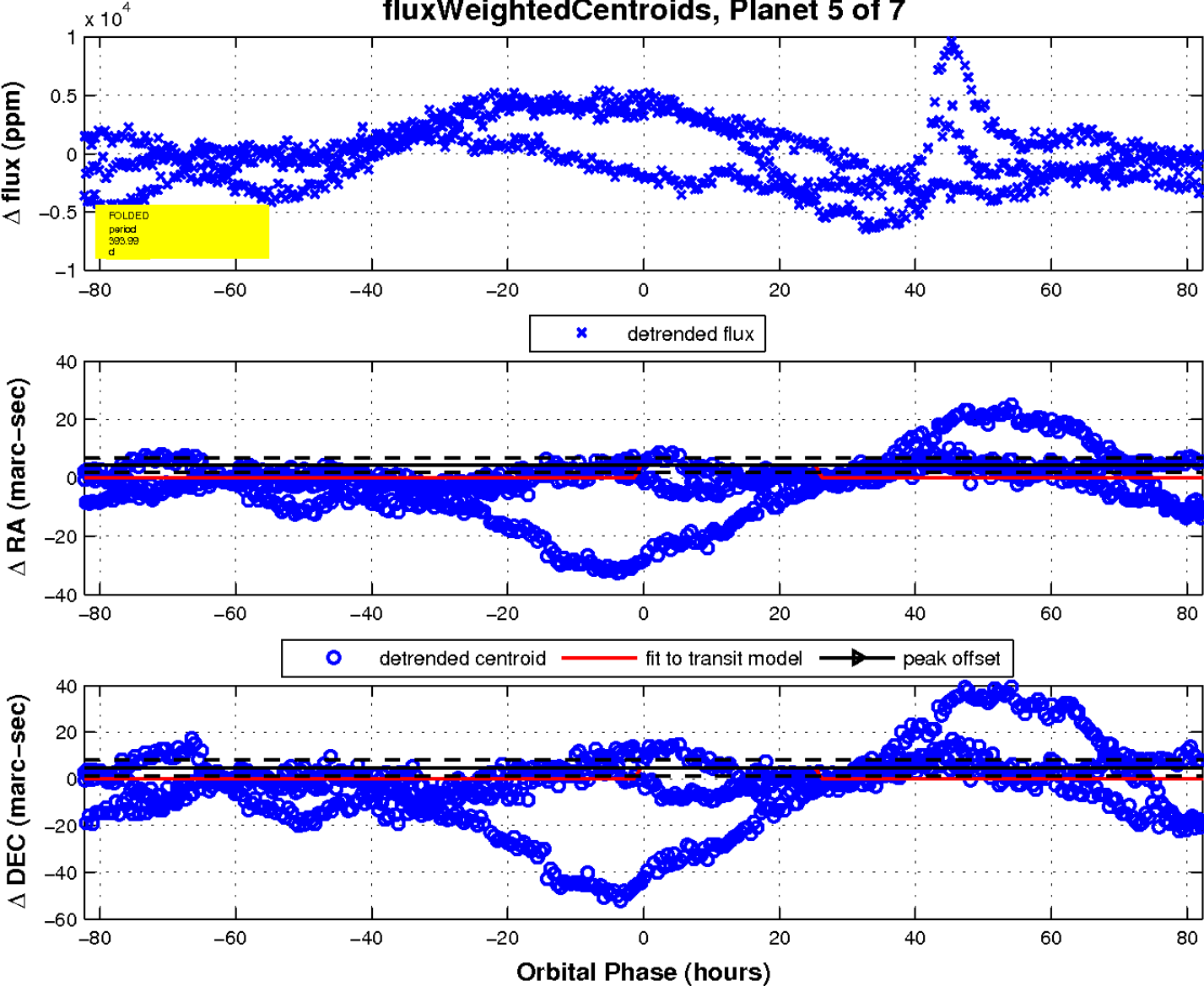
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

Q17 no difference image

Q17 no OOT image

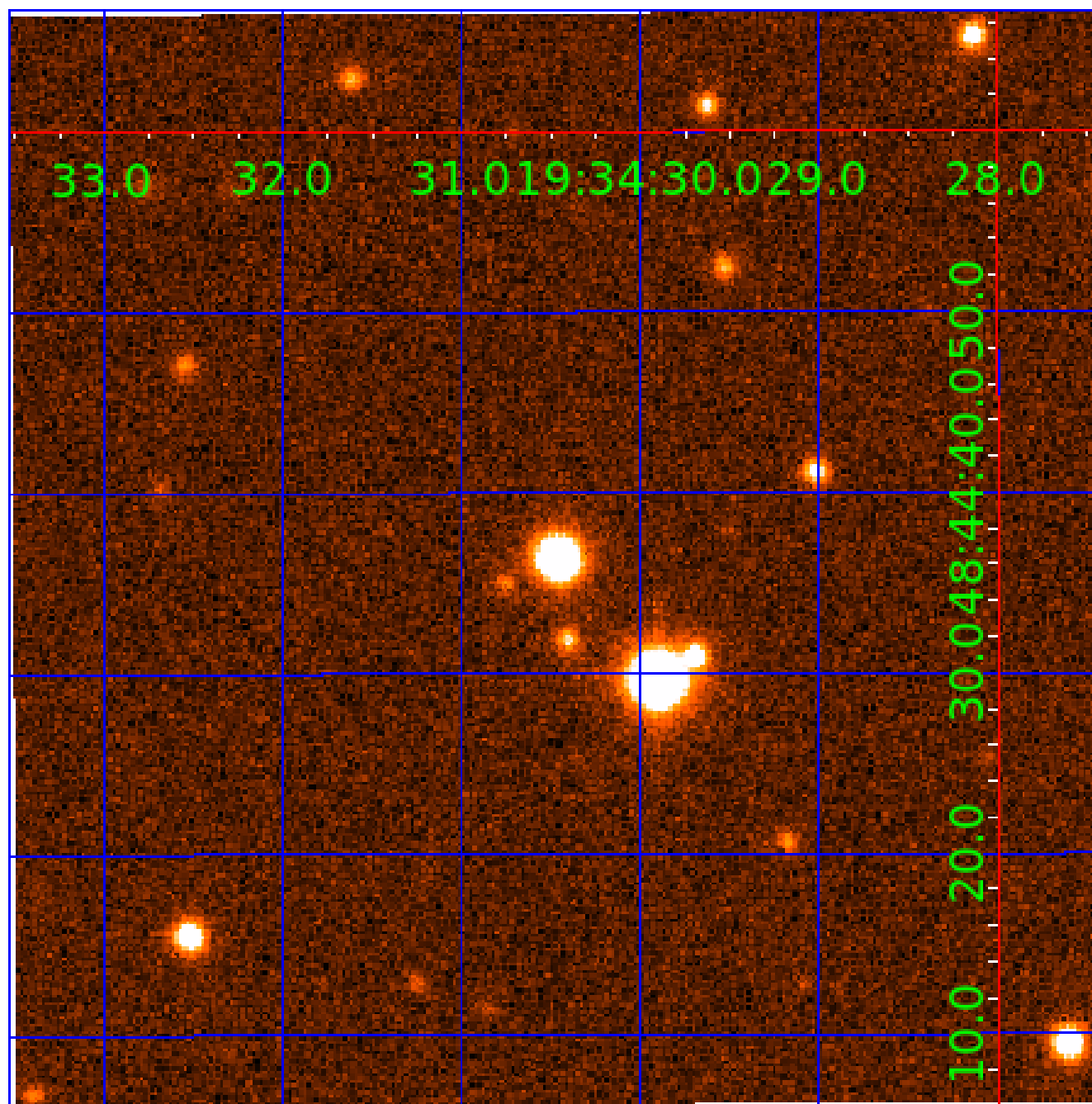


fluxWeightedCentroids, Planet 5 of 7



UKIRT Image

Declination



KIC 011141029

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
011141029-01	OBS	No	449.750067	409.590244	1874.7	3.377	18.3	7.6	0.59	4886	2.51	0.19
011141029-02	OBS	No	579.544957	393.628891	2121.8	4.030	15.5	8.7	0.59	4886	2.73	0.14
011141029-03	OBS	No	583.002322	371.101637	3078.2	8.087	16.8	7.9	0.59	4886	6.27	0.14
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011141029-05	OBS	No	393.986282	422.464455	1256.0	10.500	14.7	-1.0	0.59	4886	2.04	0.23
011141029-06	OBS	No	416.555121	499.098582	2995.0	12.590	13.5	8.5	0.59	4886	3.23	0.21
011141029-07	OBS	No	361.888147	254.296784	1568.4	3.065	10.3	6.5	0.59	4886	2.39	0.26

Robovetter Results

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011141029-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011141029-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011141029-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011141029-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—SAME_NTL_PERIOD—CENT_NOFITS
011141029-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_KIC_POS
011141029-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

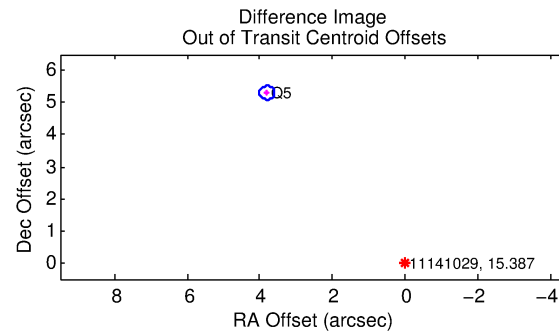
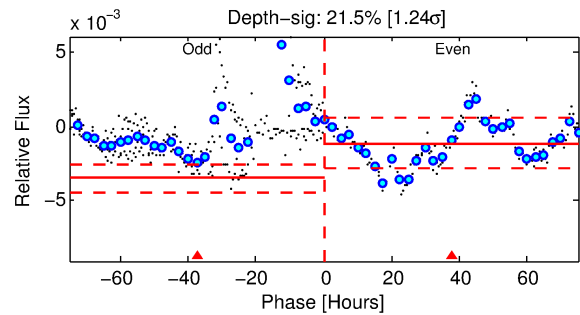
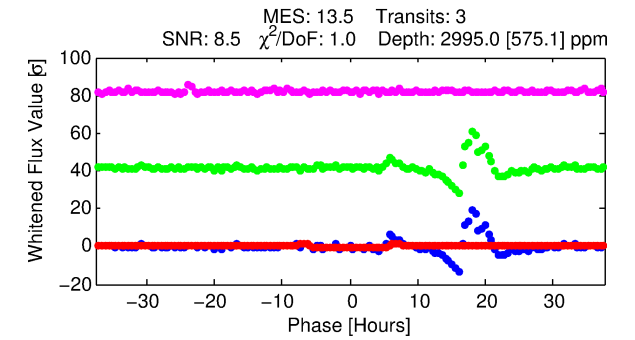
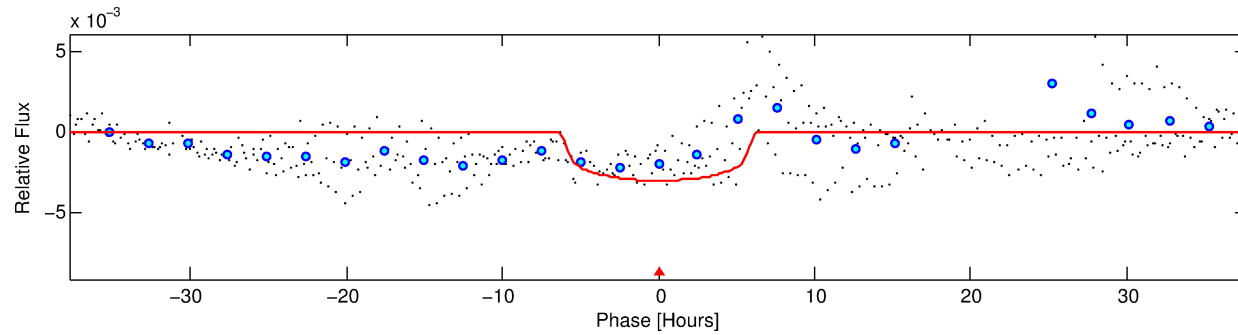
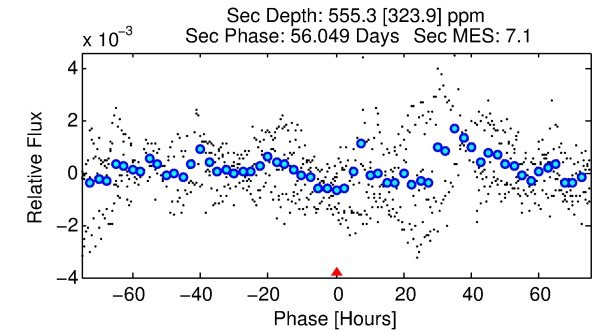
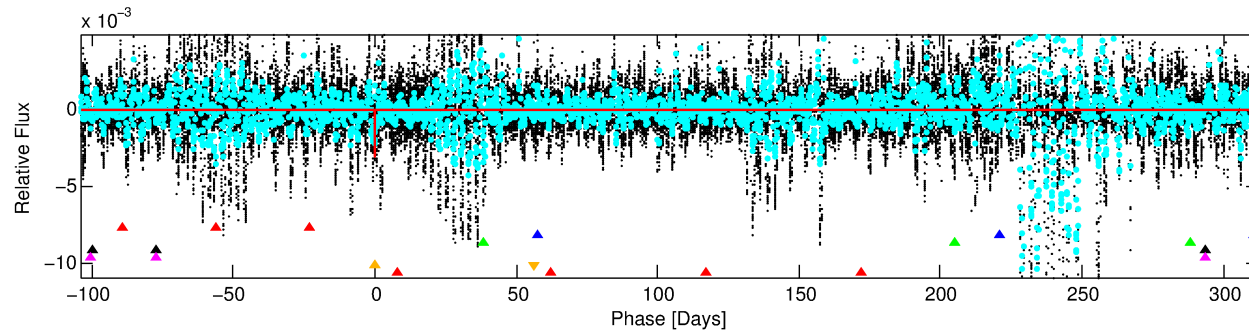
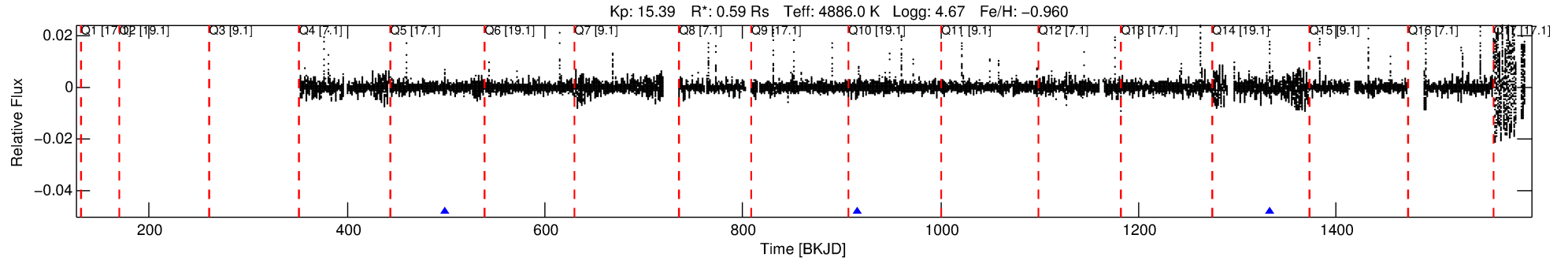
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011141029-06

No Significant Match Found

DV One-Page Summary

KIC: 11141029 Candidate: 6 of 7 Period: 416.555 d



DV Fit Results:

Period = 416.55512 [0.00801] d
Epoch = 499.0986 [0.0098] BKJD
Rp/R* = 0.0503 [0.0113]
a/R* = 241.23 [163.09]
b = 0.44 [1.25]
Seff = 0.21 [0.04]
Teq = 173 [8] K
Rp = 3.22 [0.77] Re
a = 0.9125 [0.0625] AU
Ag = 24458.88 [18155.88] [1.35σ]
Teffp = 3343 [626] K [5.06σ]

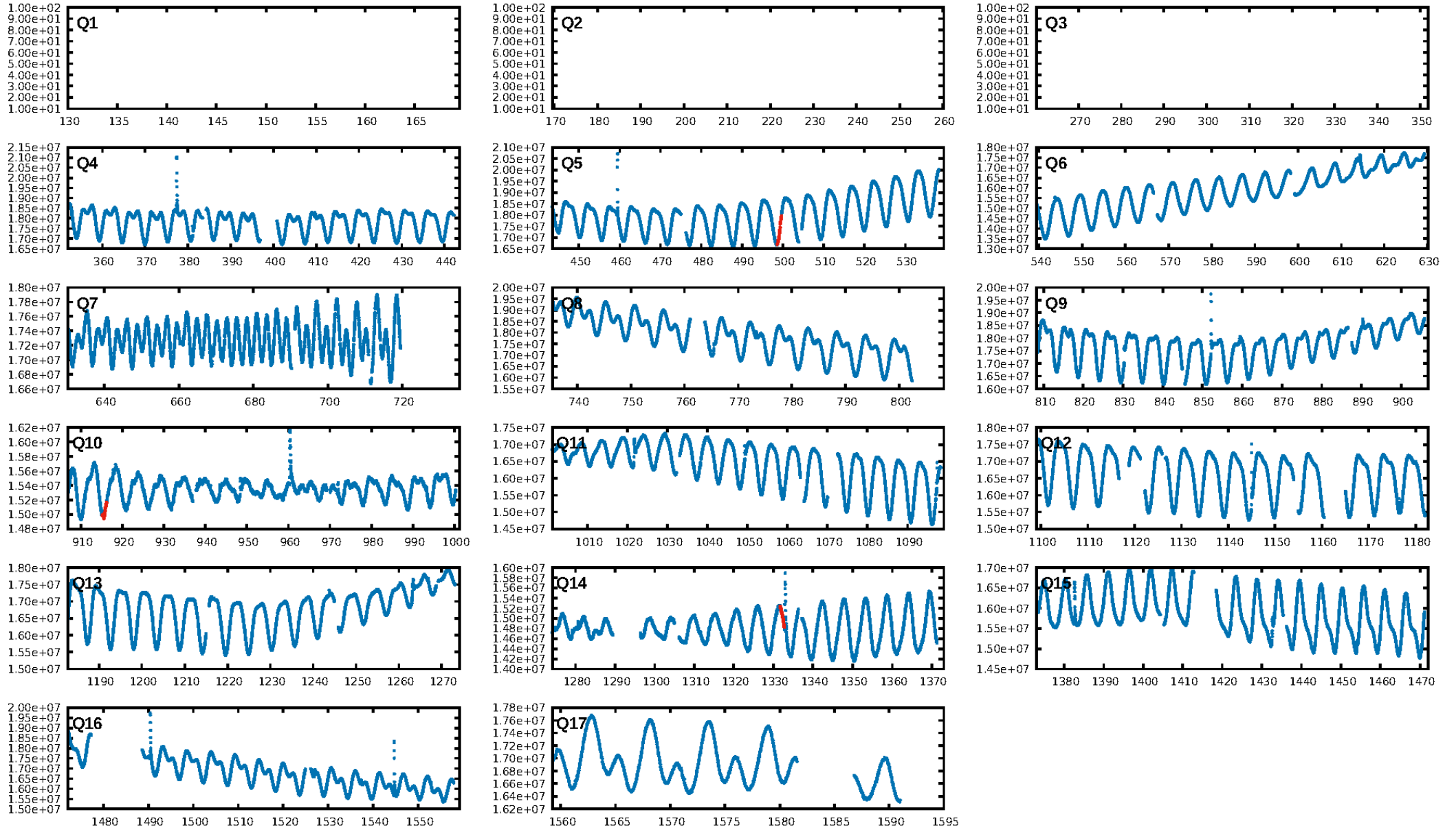
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [33.04σ]
LongPeriod-sig: 100.0% [61.12σ]
ModelChiSquare2-sig: 46.6%
ModelChiSquareGof-sig: 92.1%
Bootstrap-pfa: 2.25e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 2.336
Centroid-sig: 0.1%
Centroid-so: 2.009 arcsec [2.44σ]
OotOffset-rm: 6.531 arcsec [94.37σ]
KicOffset-rm: 0.086 arcsec [1.14σ]
OotOffset-st: 0/0/0 [1]
KicOffset-st: 2/0/0 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

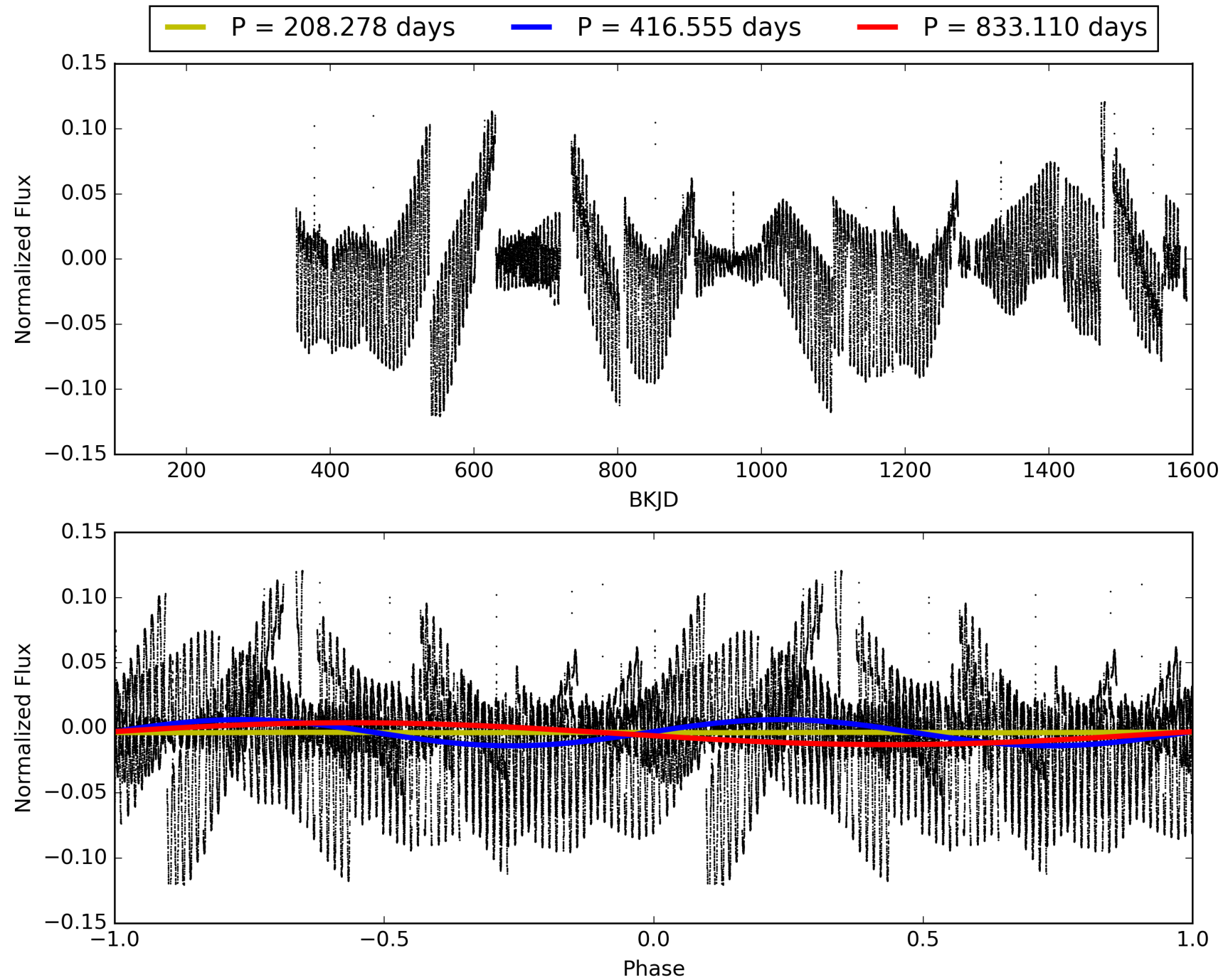
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:42:08 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 011141029-06, PDC Light Curves

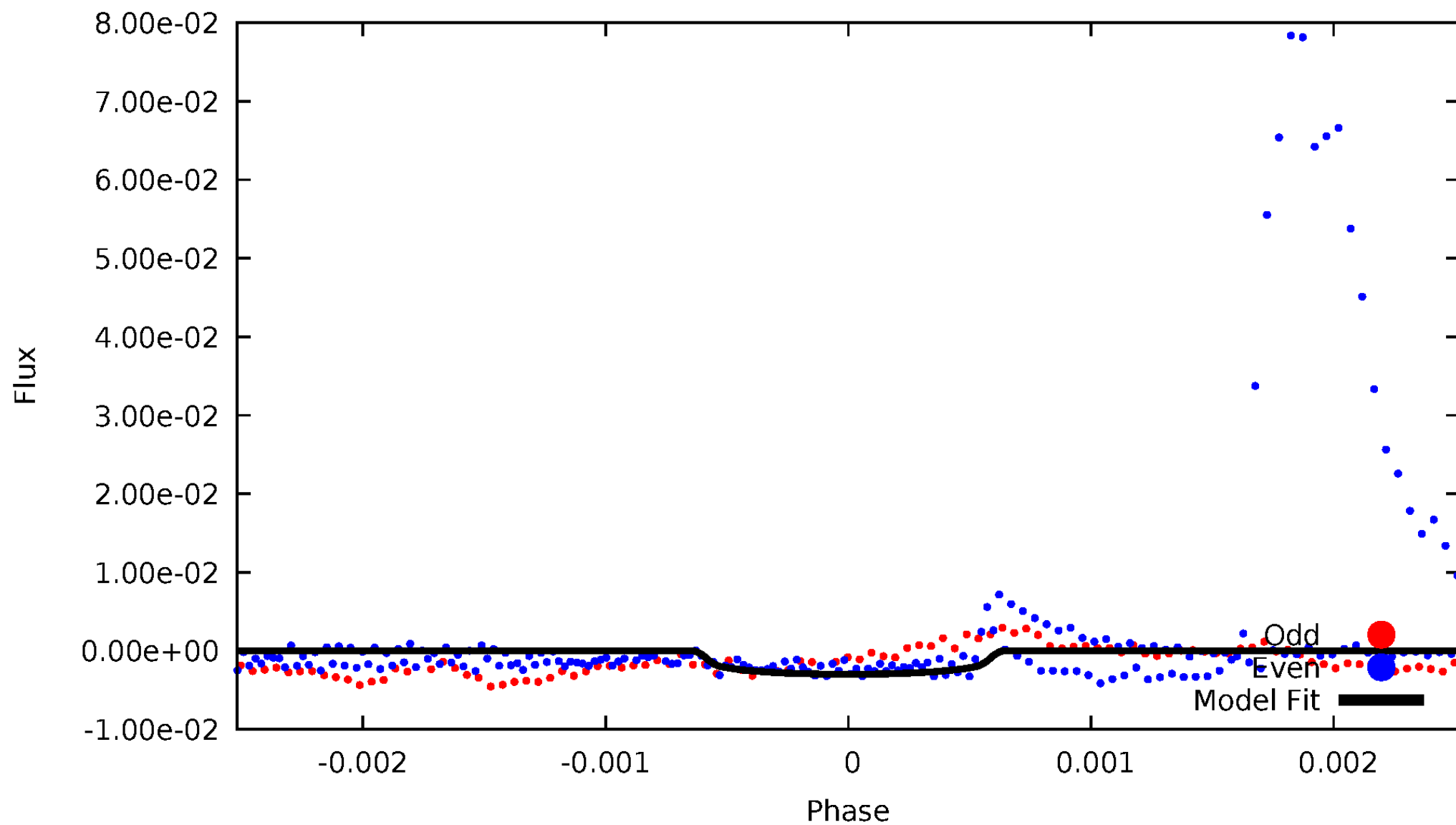


TCE 011141029-06



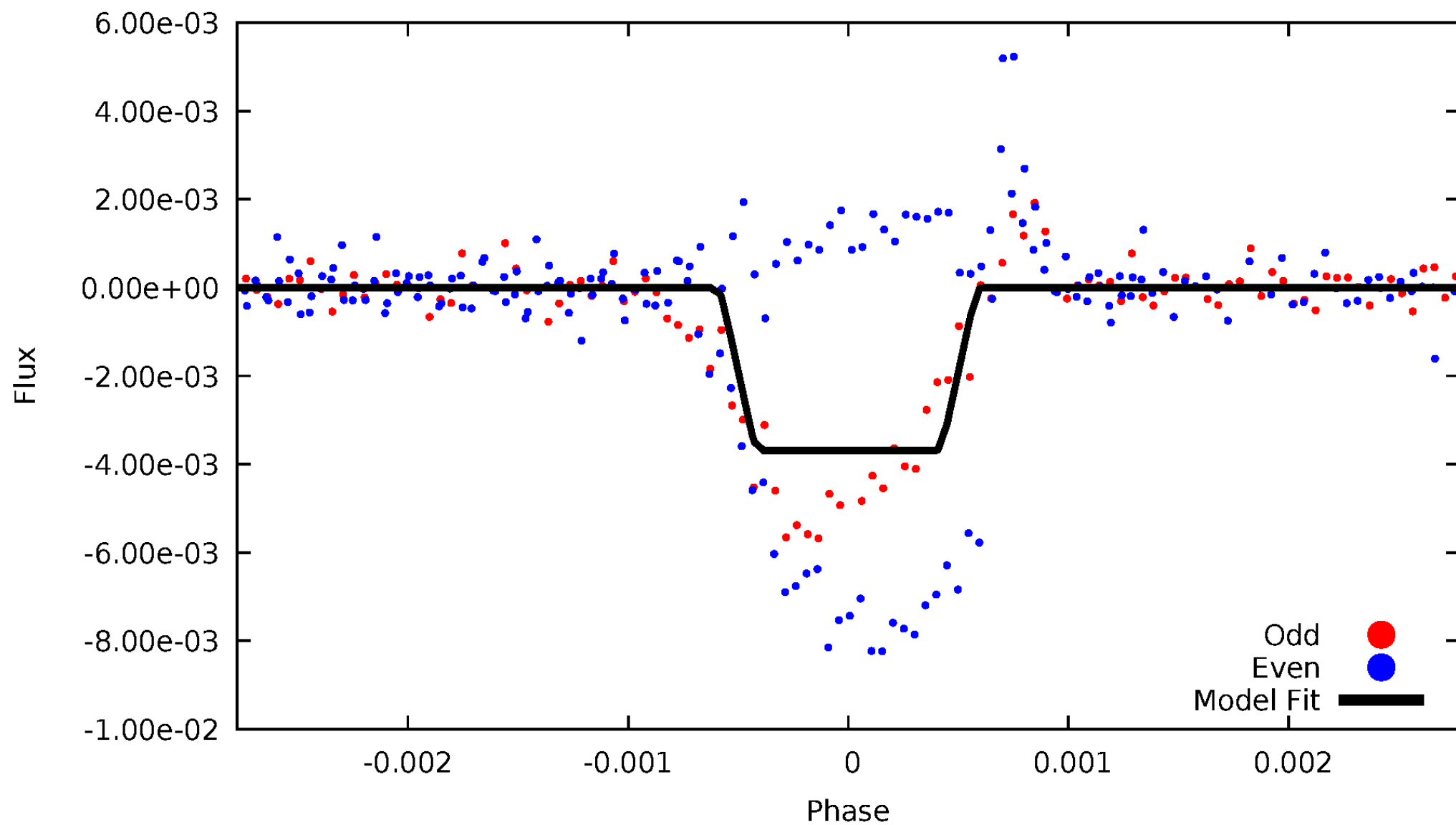
DV Odd/Even

TCE 011141029-06



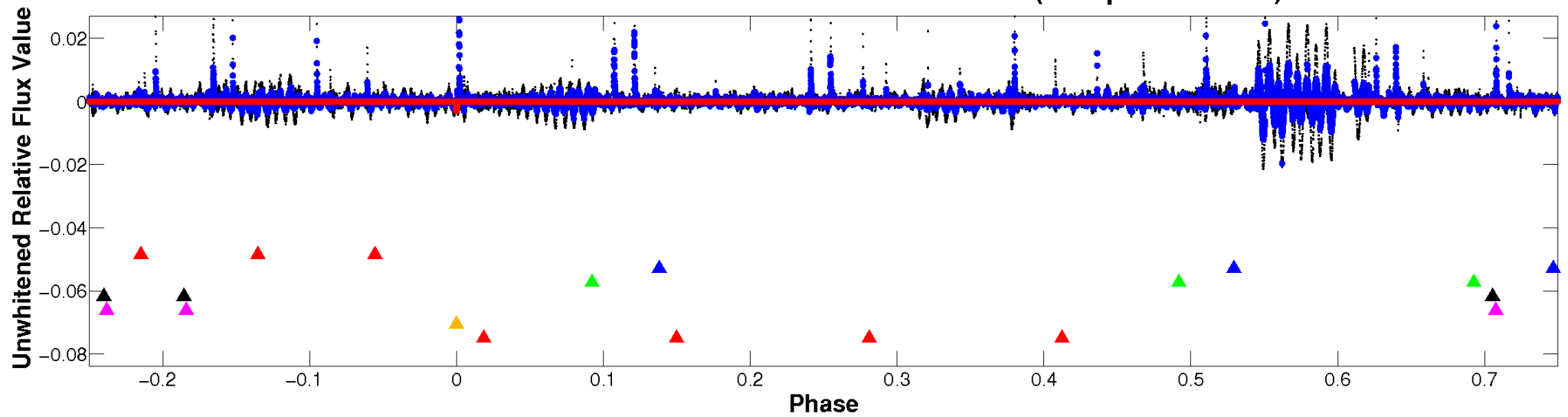
ALT Odd/Even

TCE 011141029-06

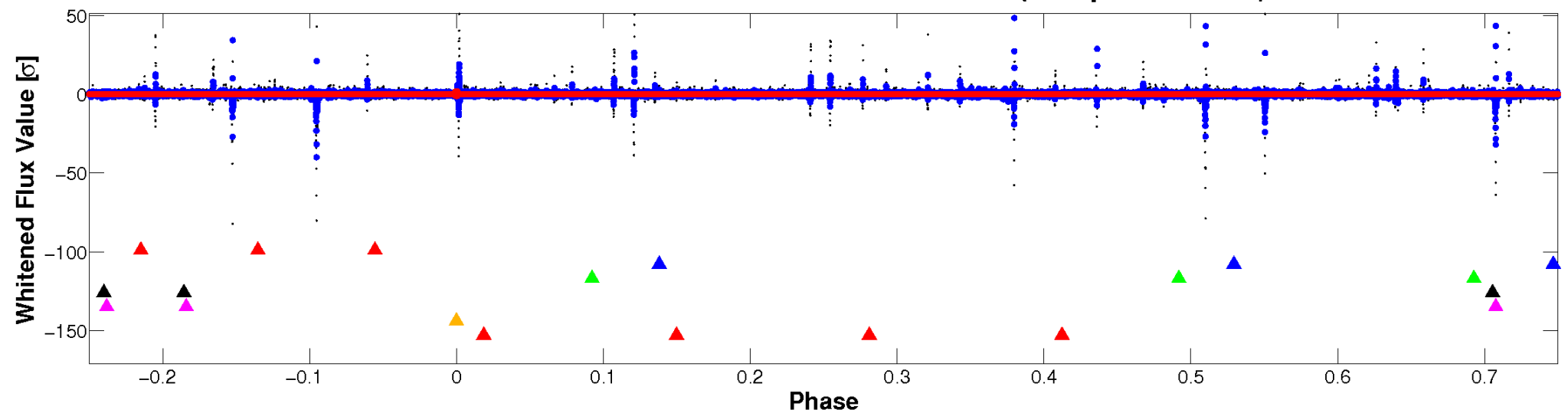


Non-Whitened Vs. Whitened Light Curve

Planet 6 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

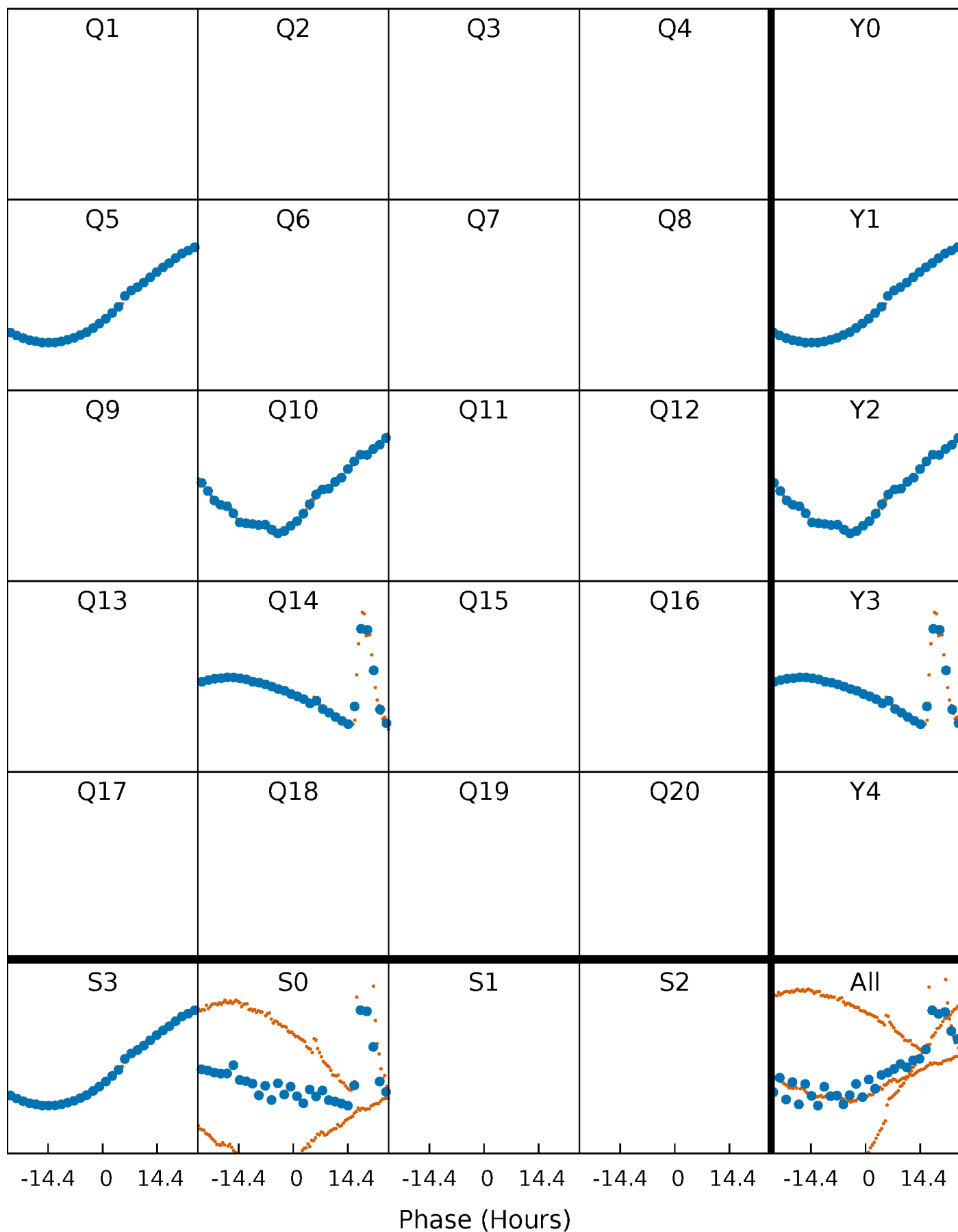


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



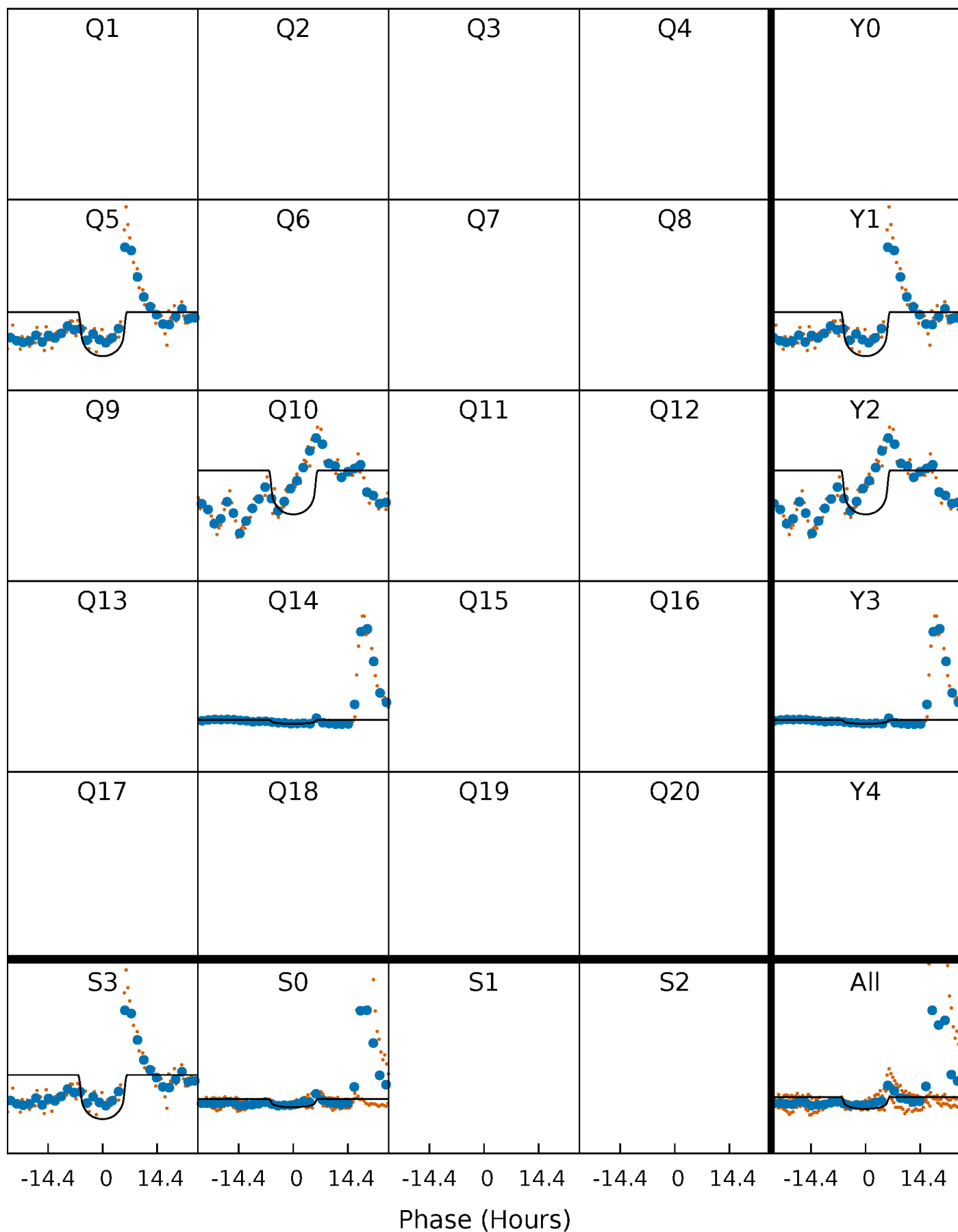
PDC Quarter-Phased Transit Curves

TCE 011141029-06 P=416.555121 Days $T_0=499.098582$ (BKJD)



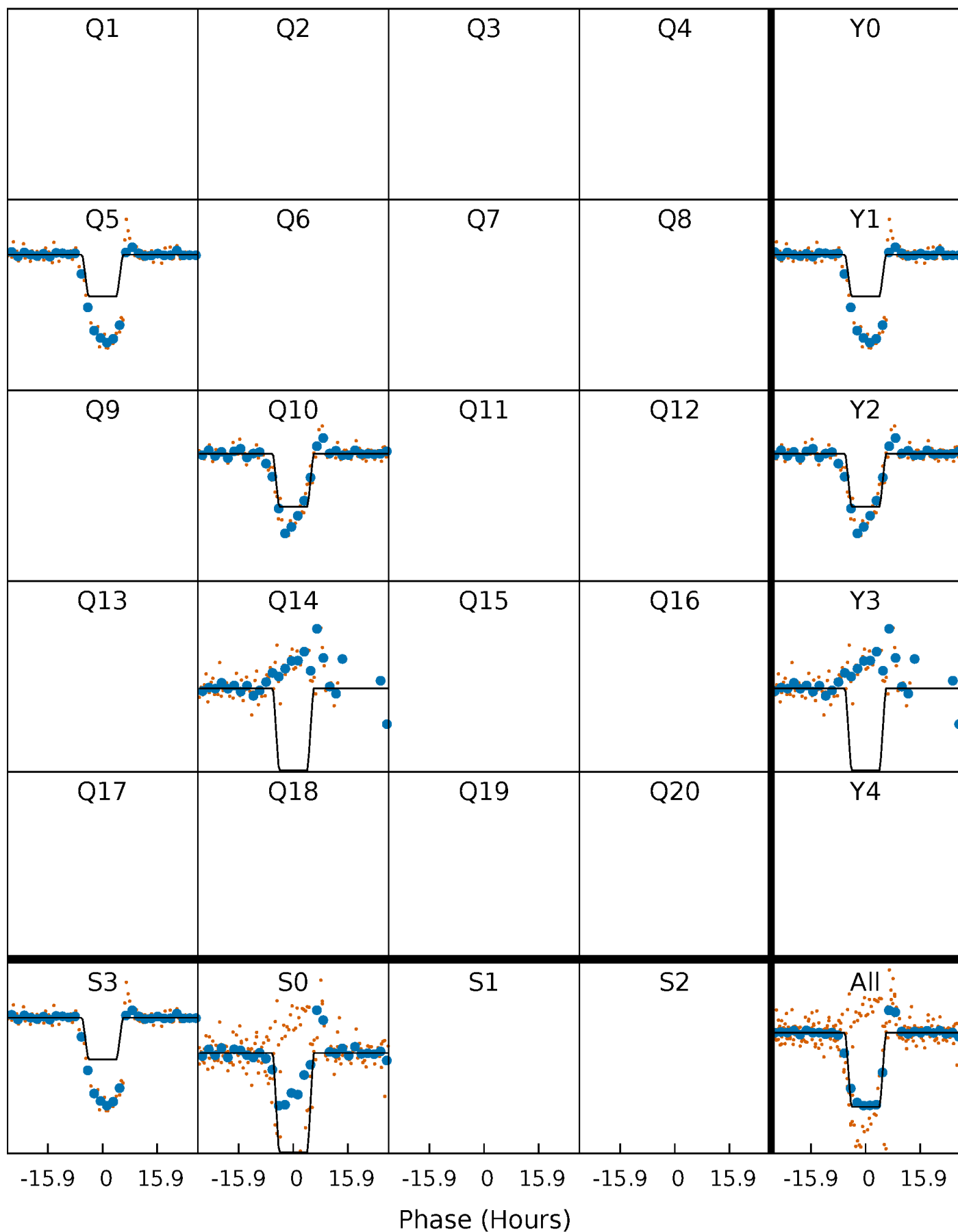
DV Quarter-Phased Transit Curves

TCE 011141029-06 P=416.555121 Days $T_0=499.098582$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

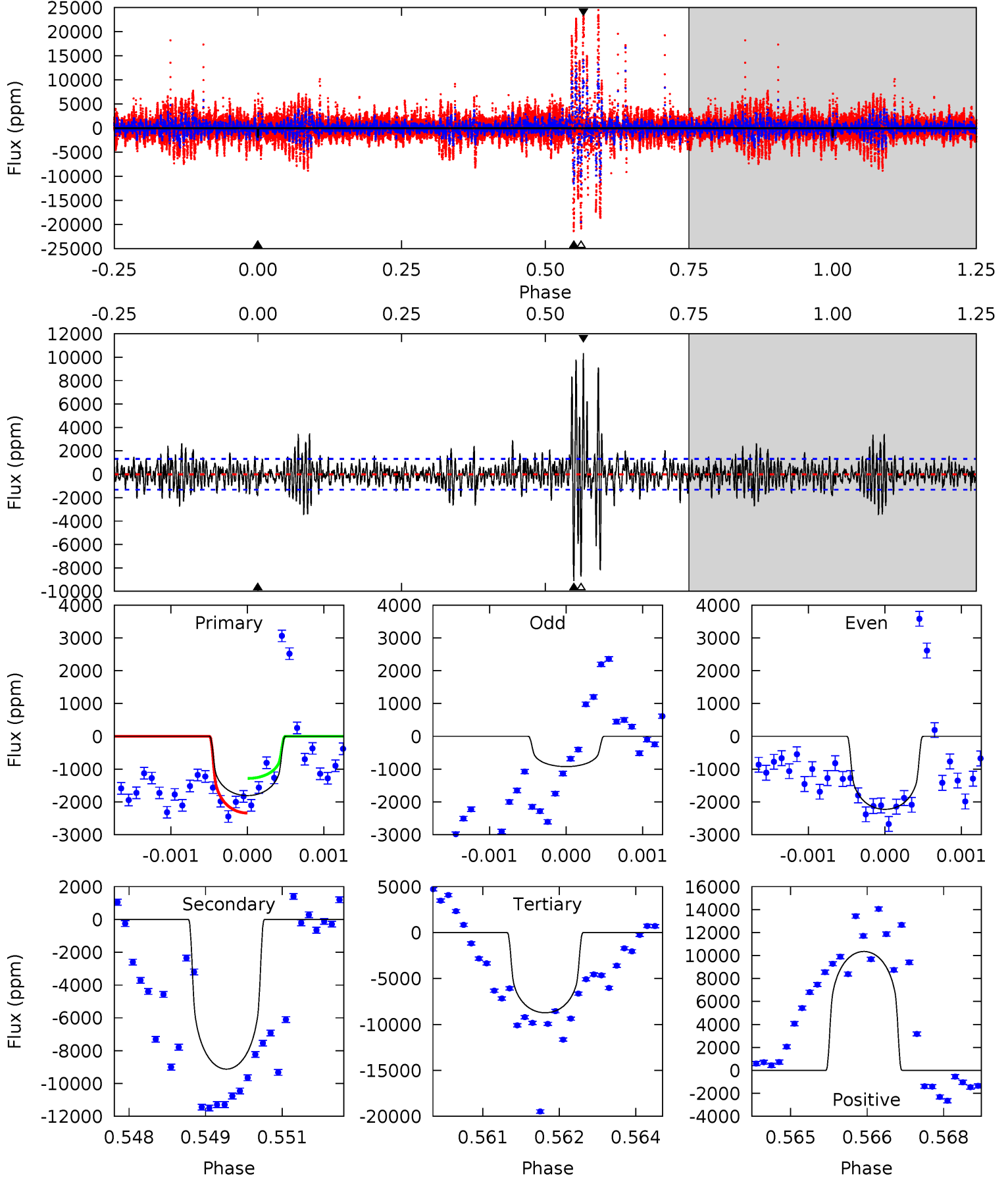
TCE 011141029-06 P=416.538121 Days $T_0=499.068689$ (BKJD)



DV Model-Shift Uniqueness Test

011141029-06, P = 416.555121 Days, E = 82.543461 Days

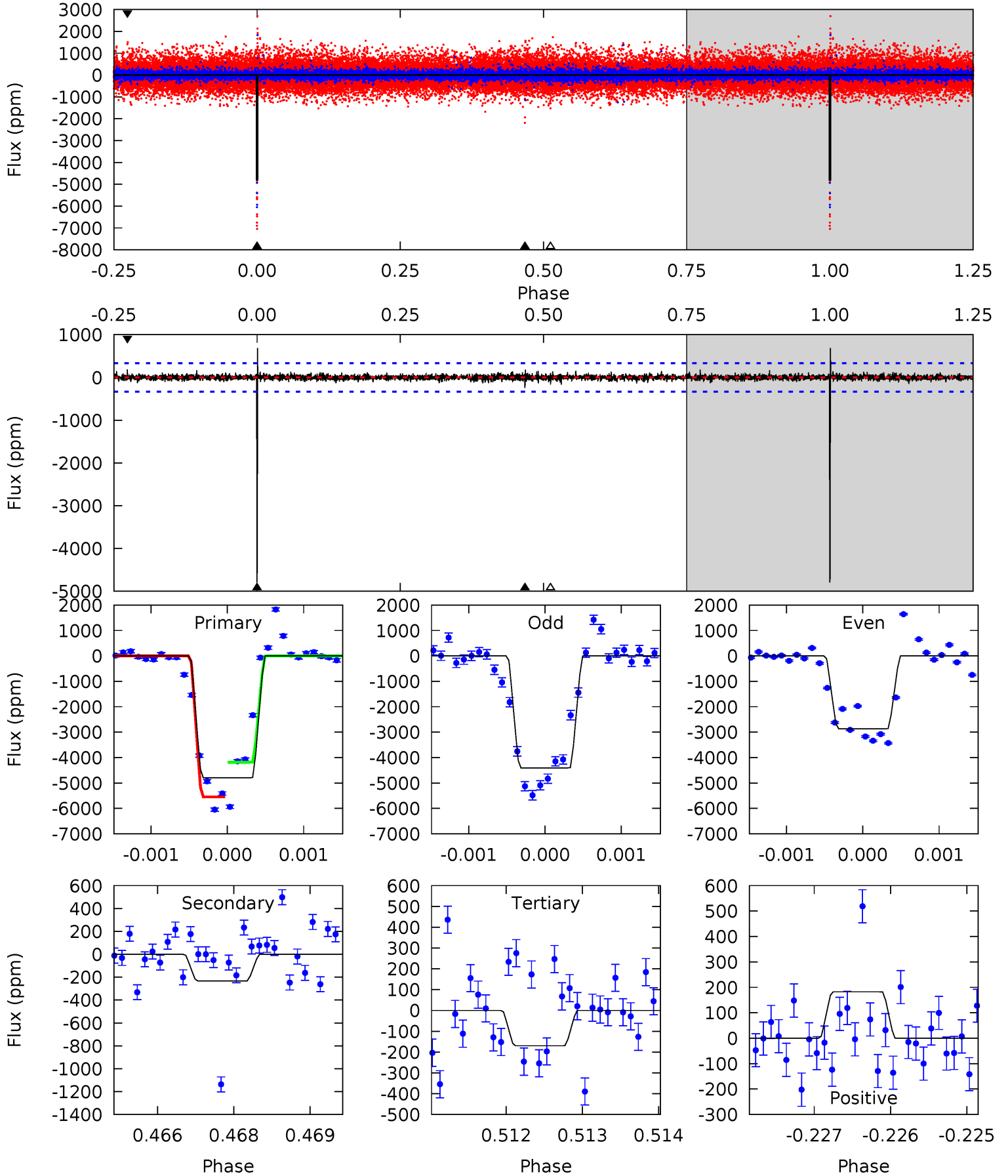
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.41	37.4	35.8	42.4	5.40	3.21	4.85	-28.4	-35.0	1.62	-5.04	1.53	1.05	0.53	2.14



Alt Model-Shift Uniqueness Test

011141029-06, P = 416.538121 Days, E = 82.530568 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
77.7	3.77	2.75	2.96	5.42	3.23	0.54	75.0	74.8	1.02	0.82	15.8	0.79	0.12	0



Stellar Parameters For KIC 011141029

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4886^{+175}_{-175}	$4.667^{+0.056}_{-0.036}$	$-0.960^{+0.300}_{-0.300}$	$0.587^{+0.047}_{-0.042}$	$0.584^{+0.055}_{-0.025}$	$4.064^{+0.916}_{-0.559}$
	+4%/-4%	+1%/-1%	+31%/-31%	+8%/-7%	+9%/-4%	+23%/-14%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011141029-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-9124 ± 244	$3.22^{+0.72}_{-0.77}$	240^{+10}_{-9}	6595^{+1160}_{-665}	$413211^{+305474}_{-138590}$
Alt.	-233 ± 62	$3.87^{+0.79}_{-0.70}$	240^{+10}_{-9}	3057^{+230}_{-215}	7405^{+4061}_{-2878}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

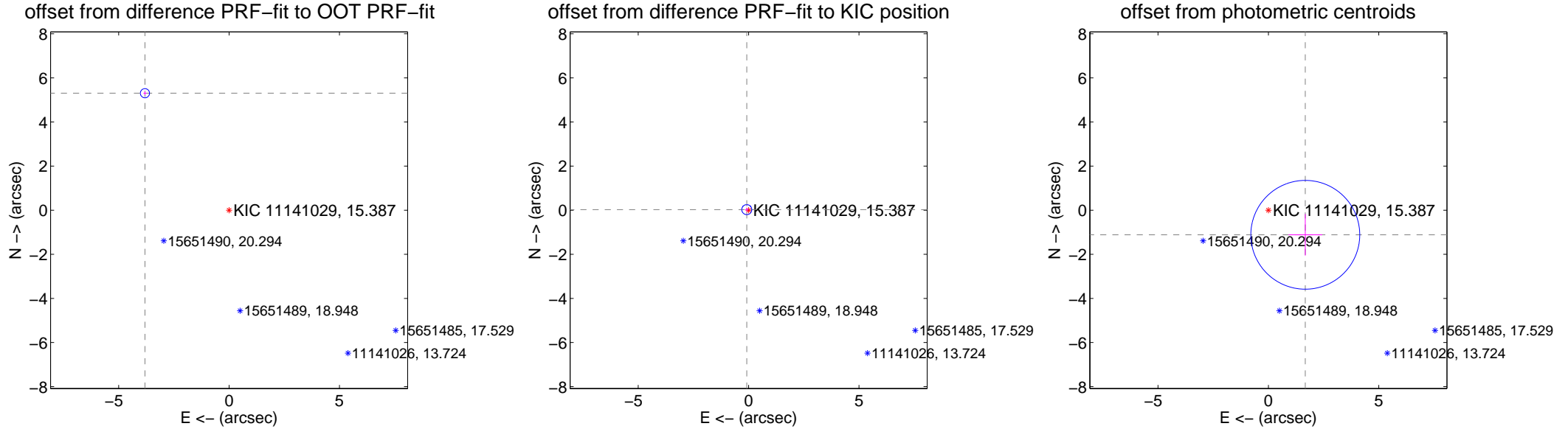
DV Centroid Data

Supplemental centroid analysis for 011141029-06. Kepler magnitude: 15.39. Transit SNR 8.46

There are 3 quarters with good PRF difference image offsets

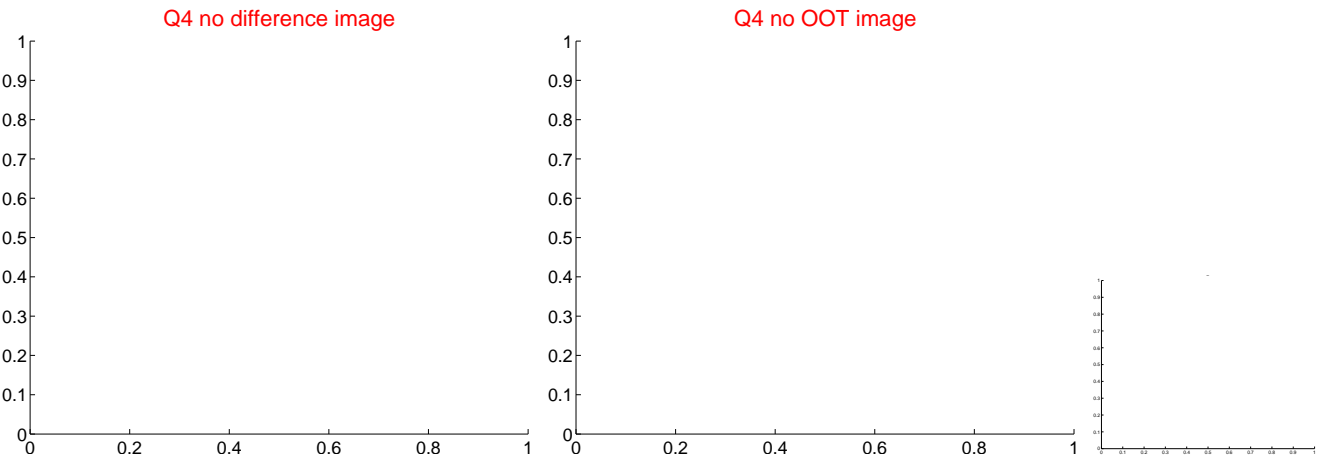
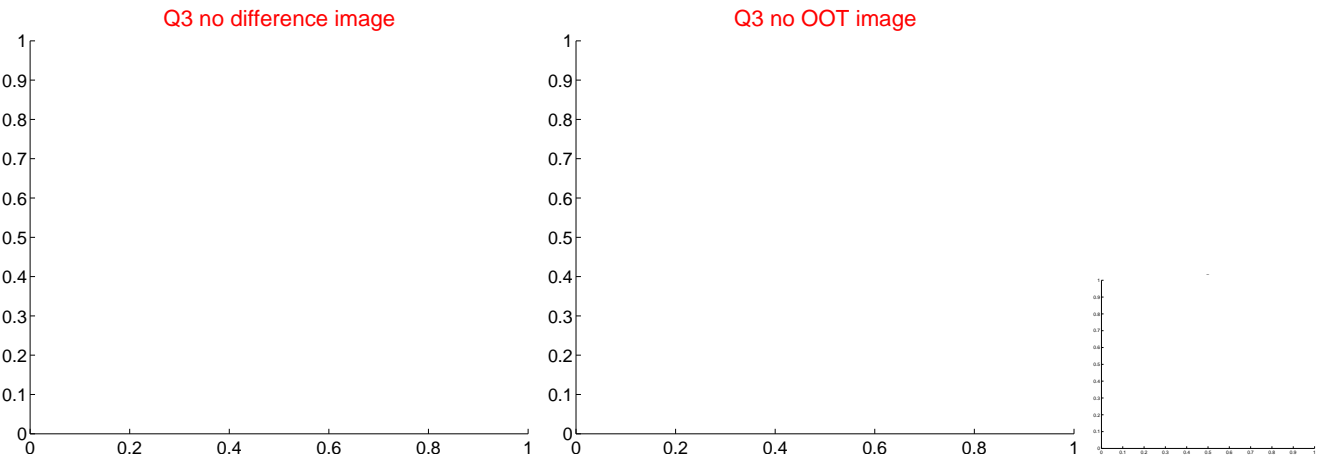
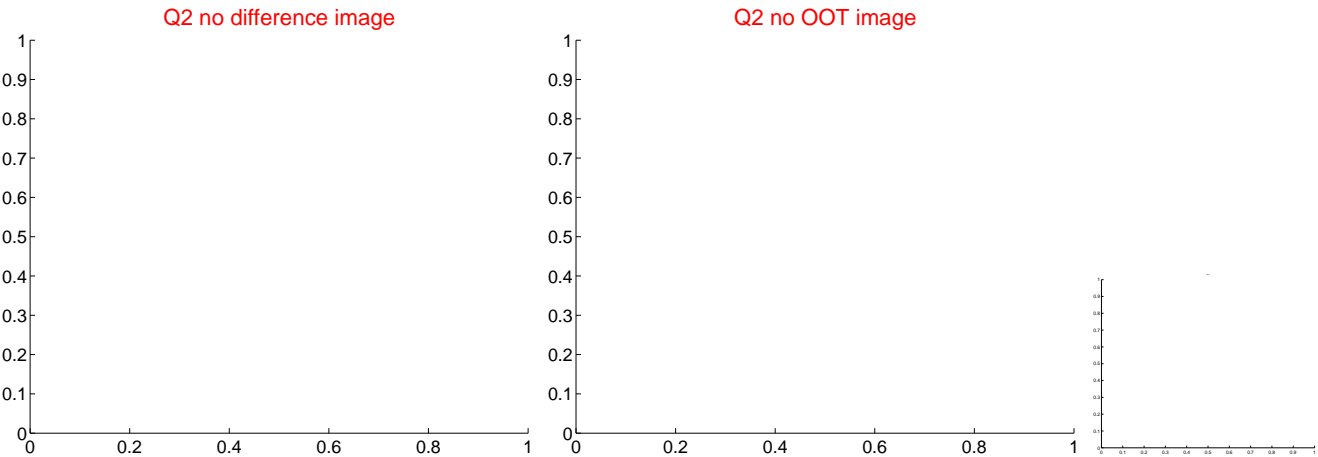
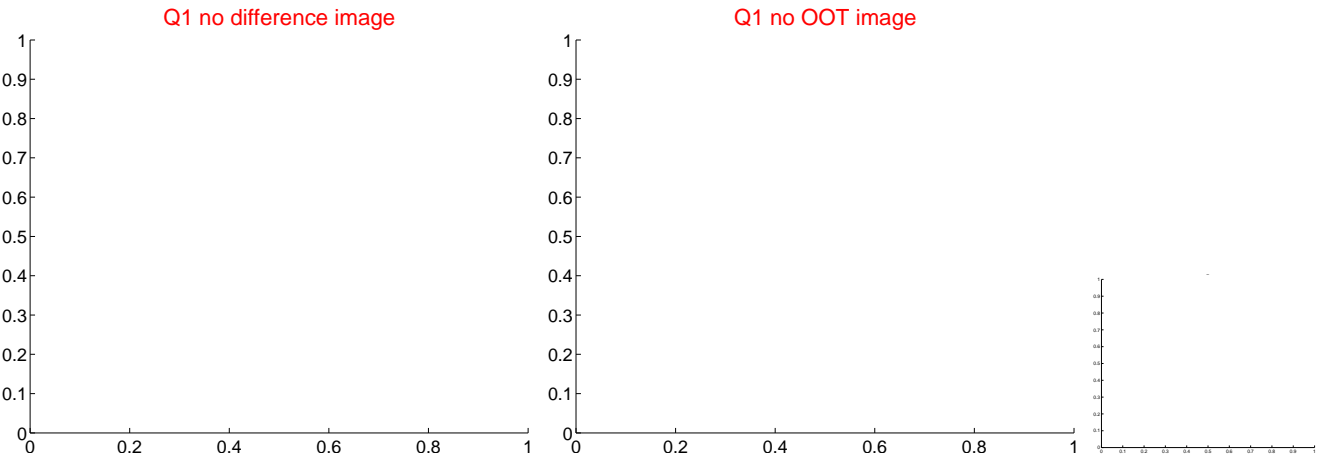
The OOT PRF centroid is offset from the target star catalog position by about 6.44 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.531 \pm 0.069	94.37	3.810 \pm 0.068	5.304 \pm 0.070
PRF-fit source offset from KIC position	0.086 \pm 0.076	1.14	0.082 \pm 0.074	0.026 \pm 0.086
photometric centroid source offset	2.01 \pm 0.82	2.44	-1.67 \pm 0.76	-1.12 \pm 0.94

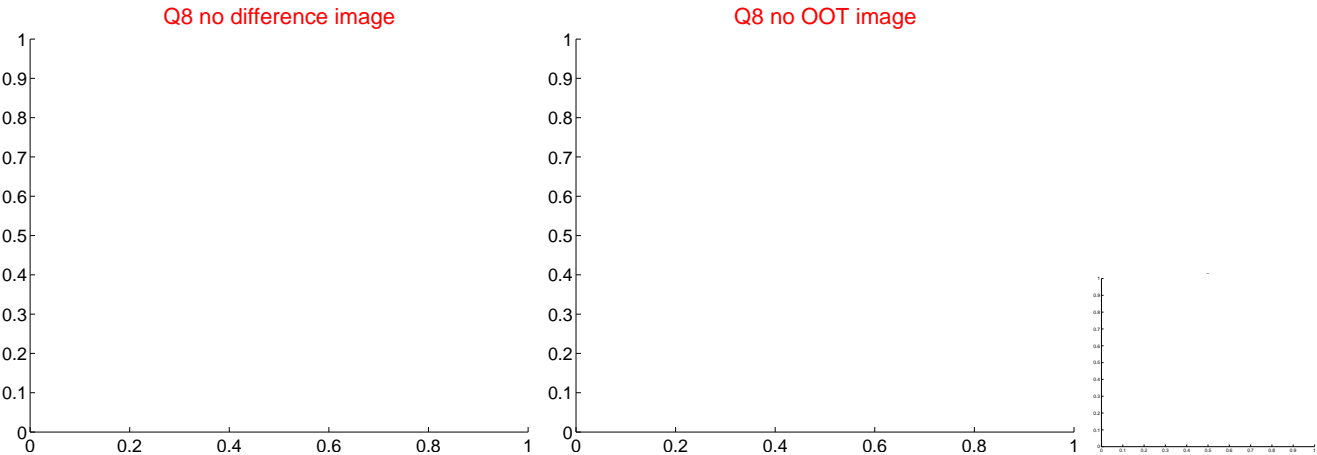
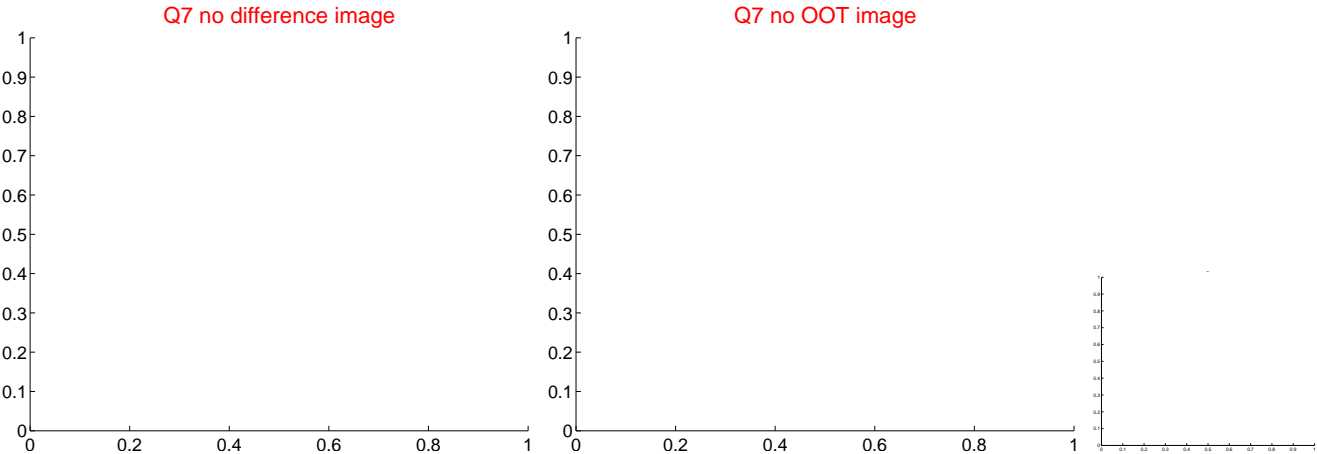
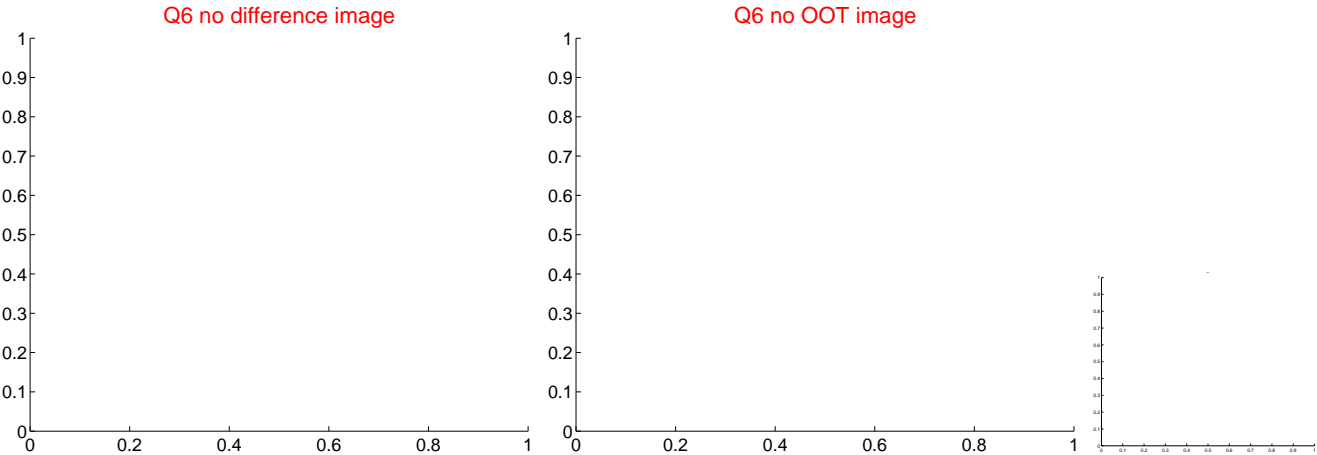
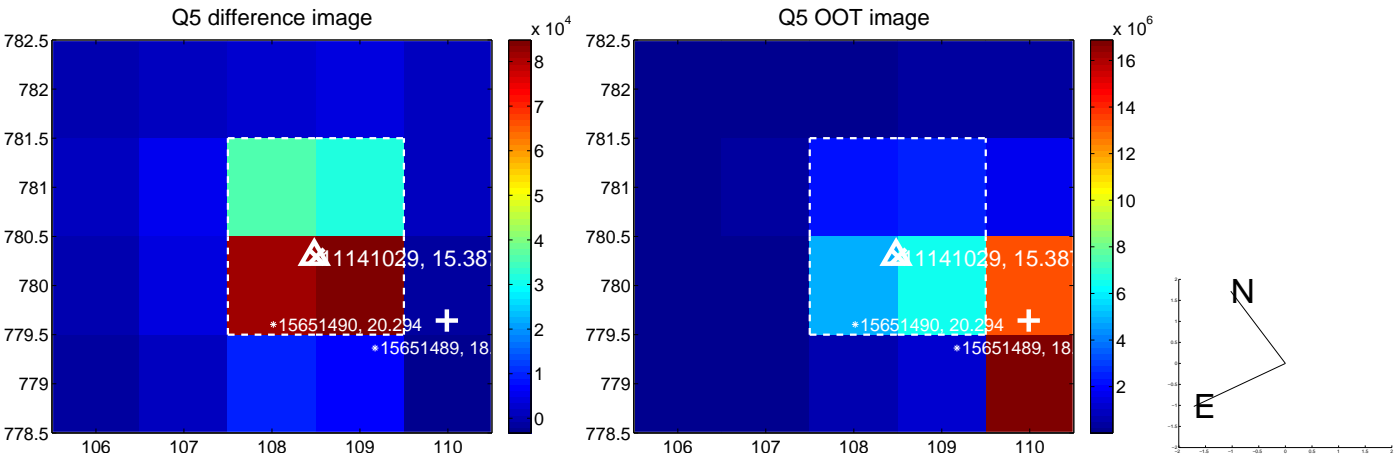


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

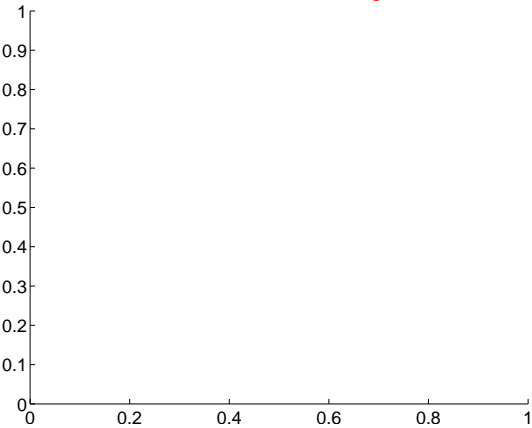


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

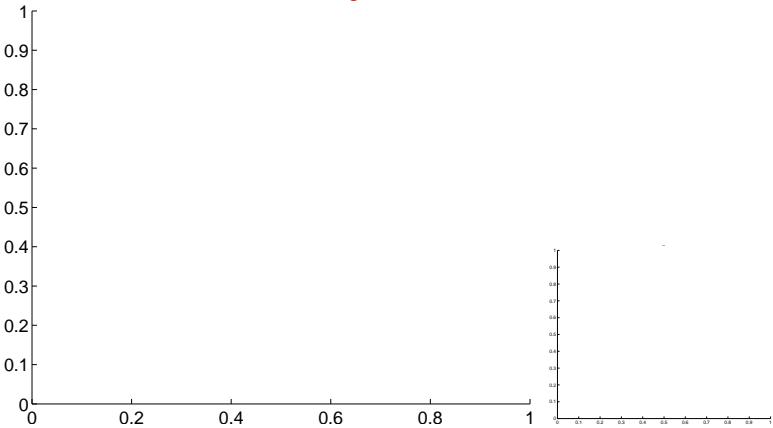


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

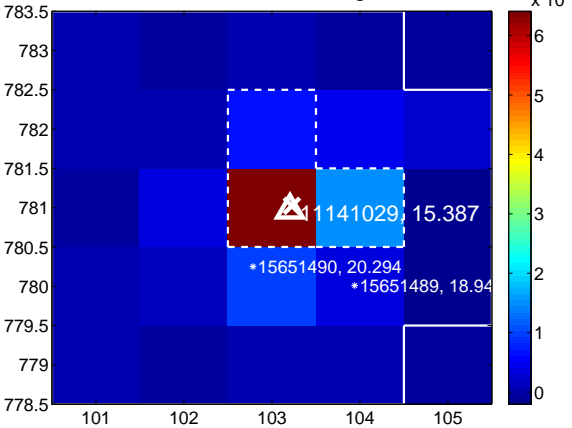
Q9 no difference image



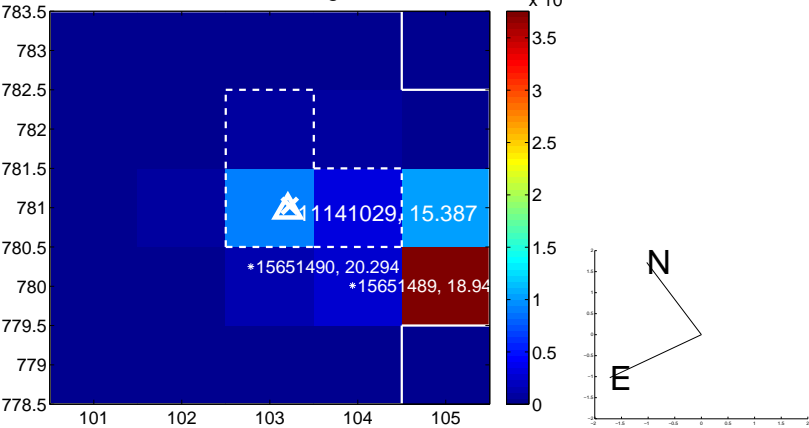
Q9 no OOT image



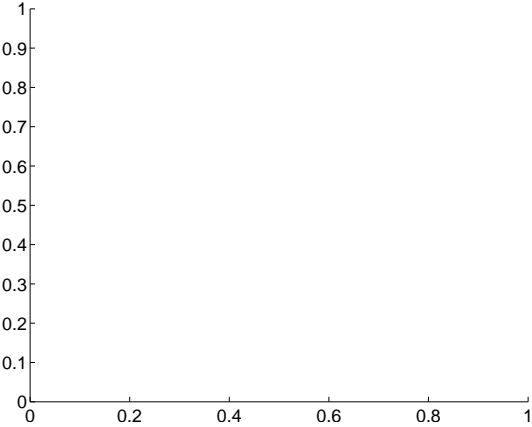
Q10 difference image



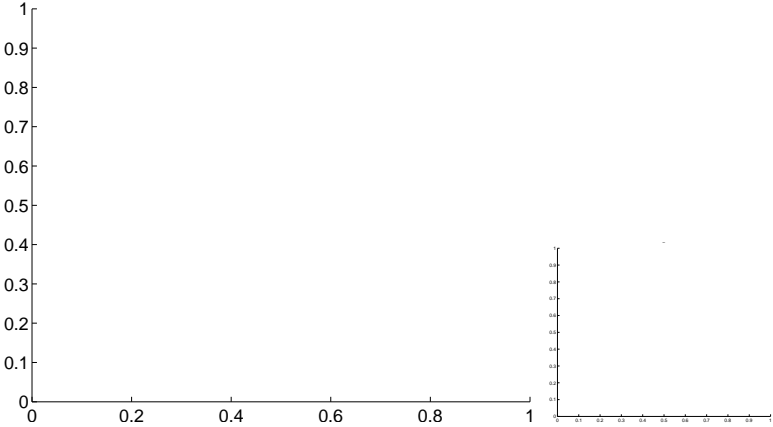
Q10 OOT image



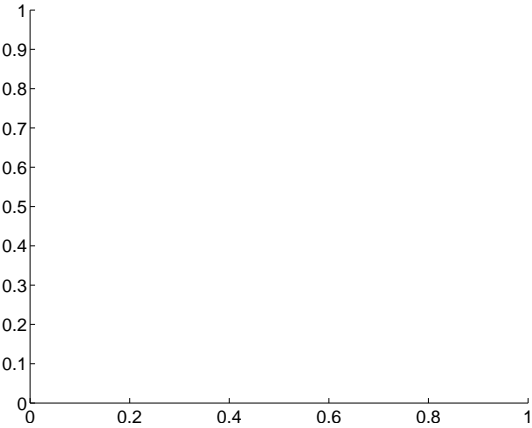
Q11 no difference image



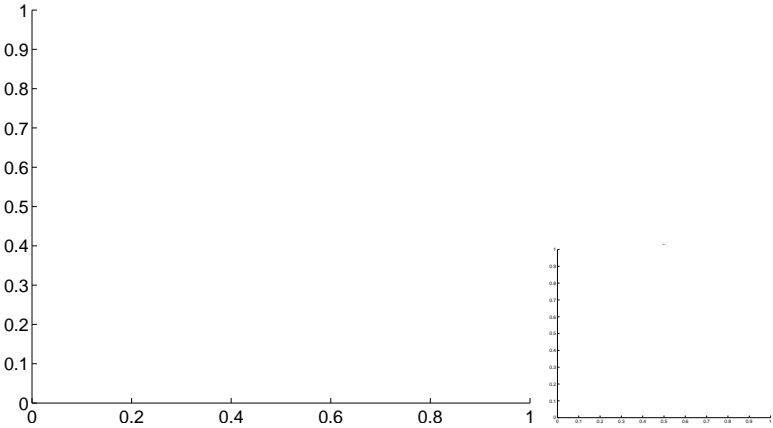
Q11 no OOT image



Q12 no difference image

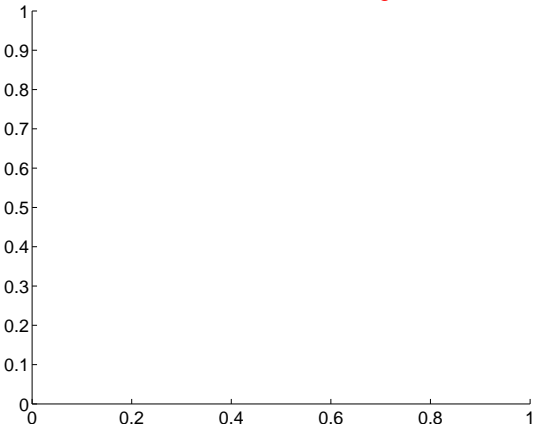


Q12 no OOT image

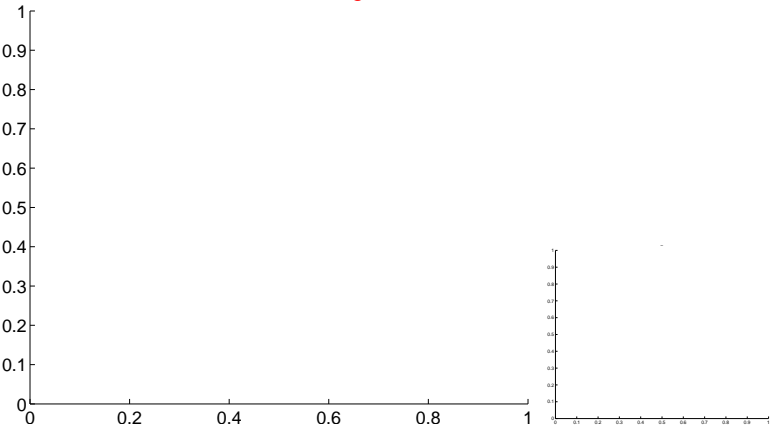


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

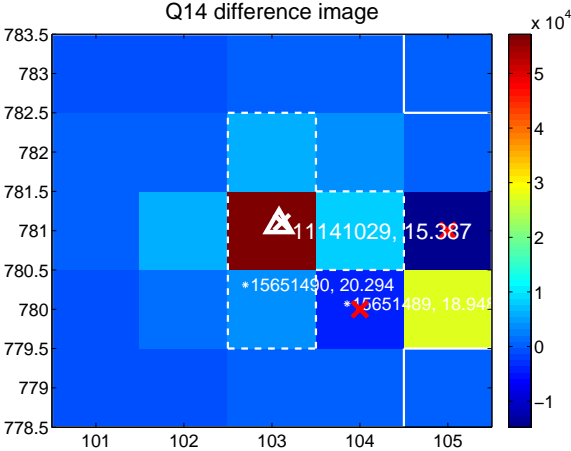
Q13 no difference image



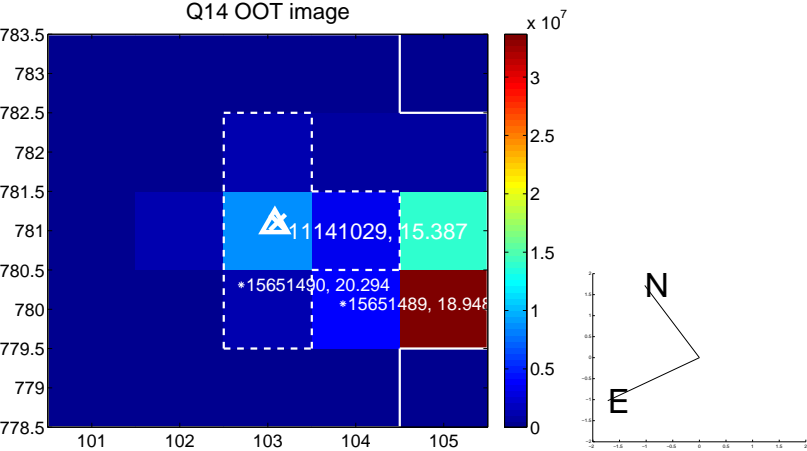
Q13 no OOT image



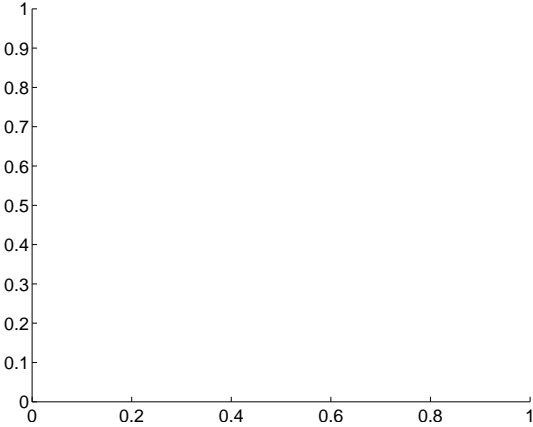
Q14 difference image



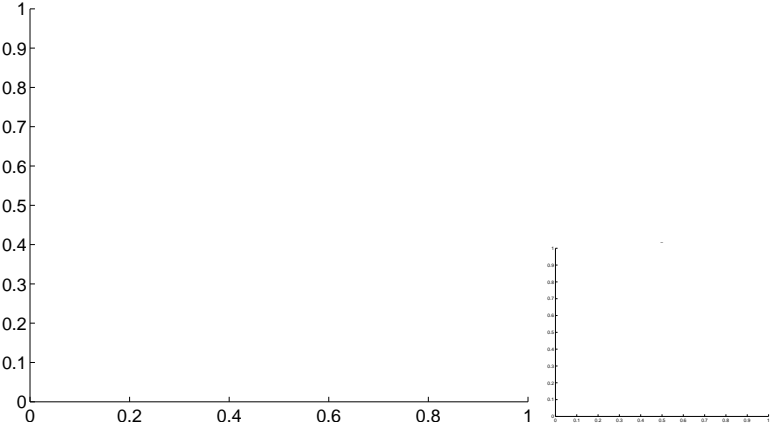
Q14 OOT image



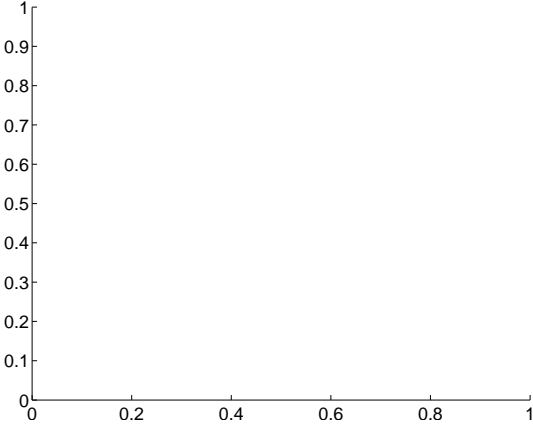
Q15 no difference image



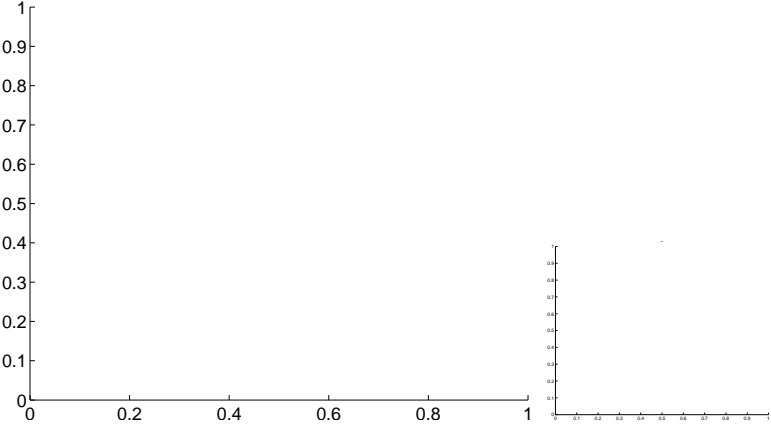
Q15 no OOT image



Q16 no difference image



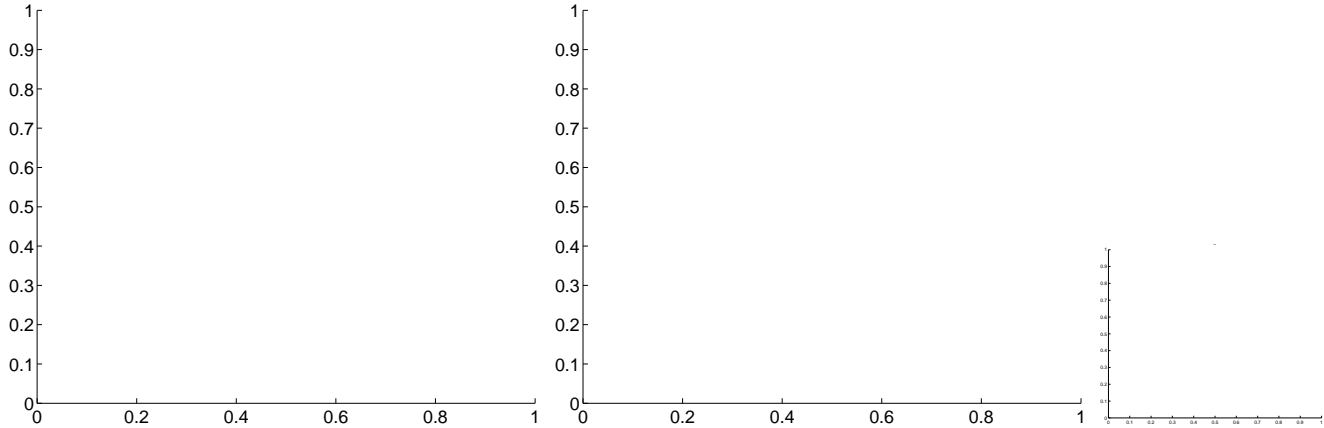
Q16 no OOT image



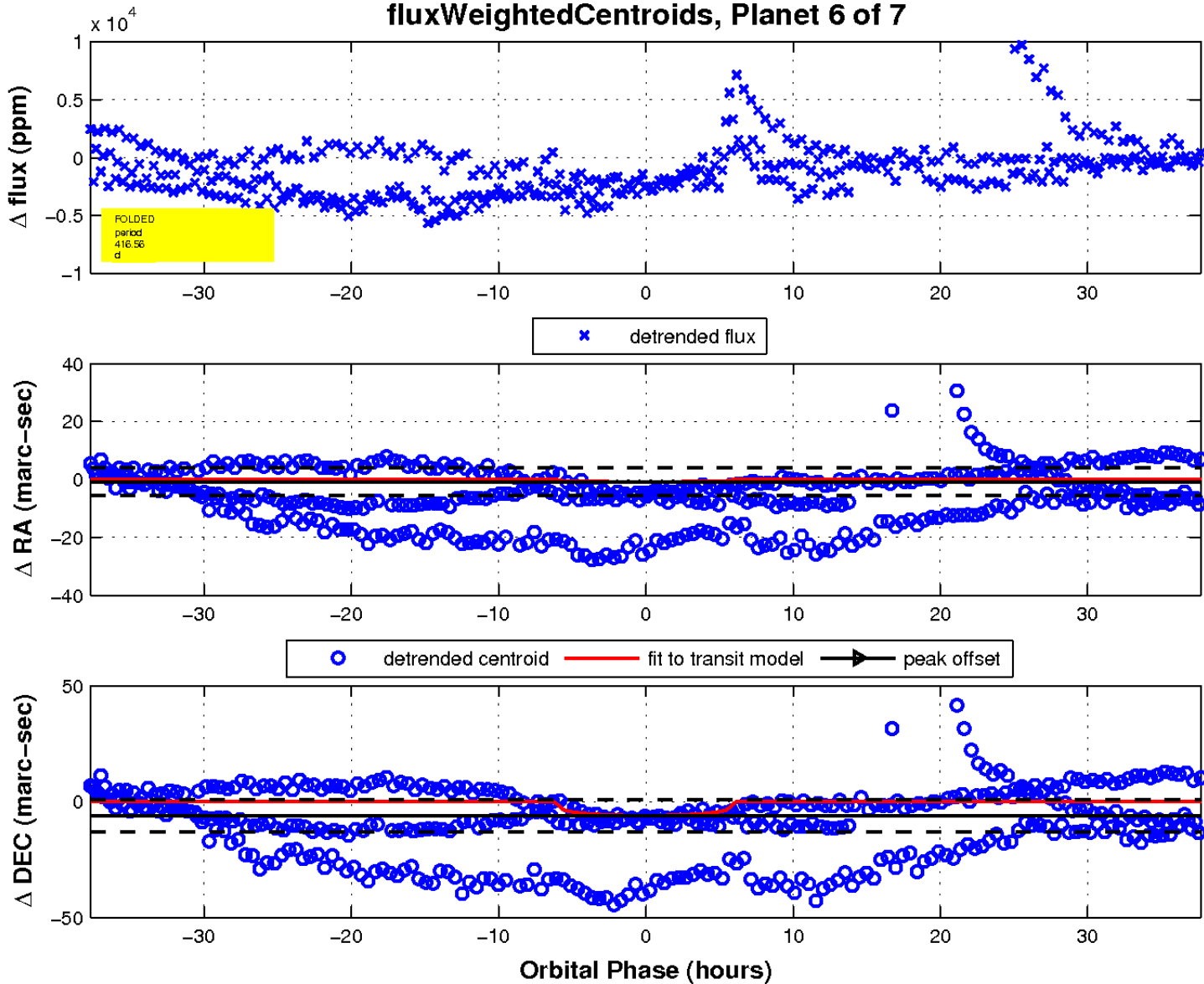
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

Q17 no difference image

Q17 no OOT image

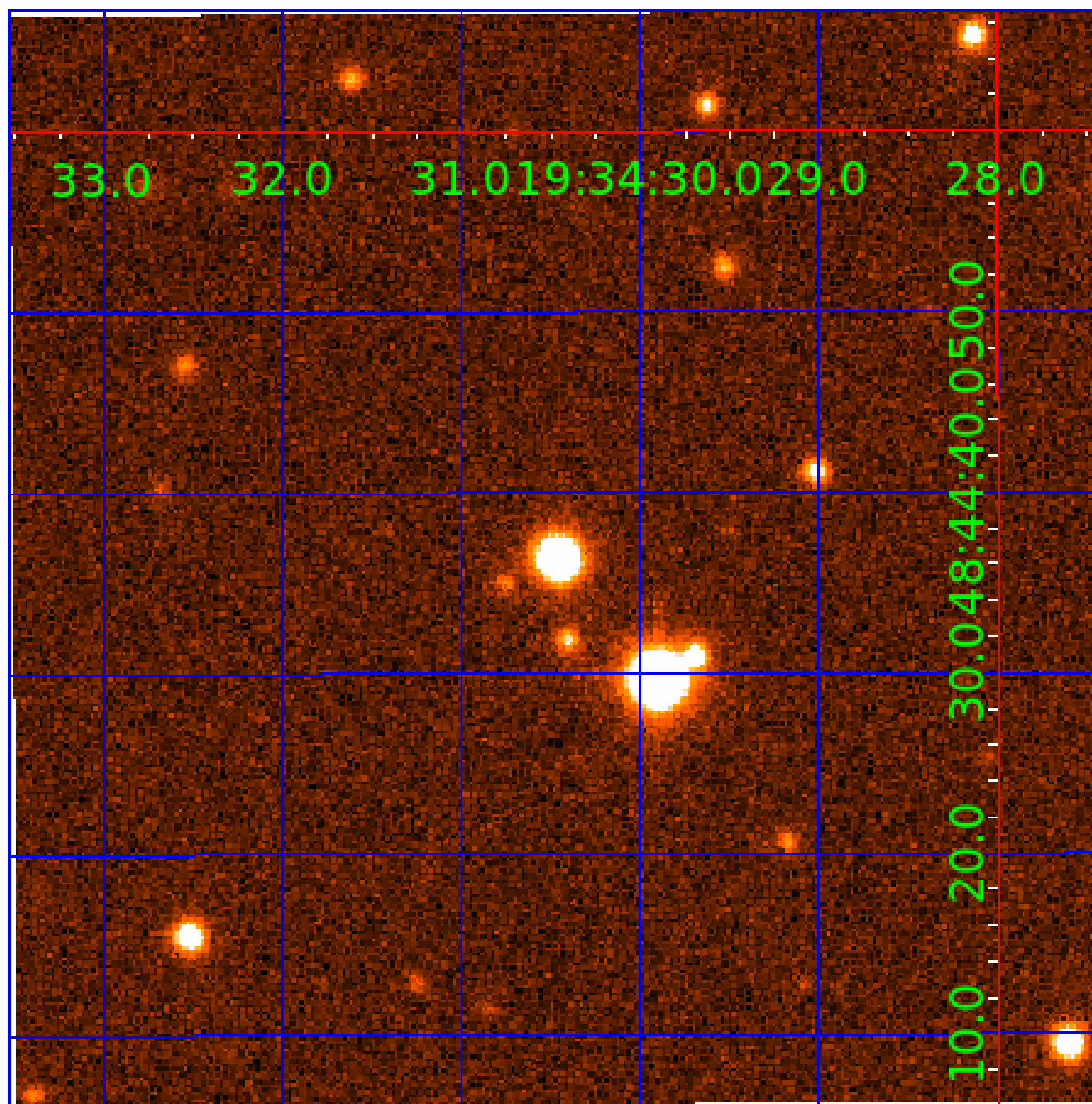


fluxWeightedCentroids, Planet 6 of 7



UKIRT Image

Declination



KIC 011141029

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
011141029-01	OBS	No	449.750067	409.590244	1874.7	3.377	18.3	7.6	0.59	4886	2.51	0.19
011141029-02	OBS	No	579.544957	393.628891	2121.8	4.030	15.5	8.7	0.59	4886	2.73	0.14
011141029-03	OBS	No	583.002322	371.101637	3078.2	8.087	16.8	7.9	0.59	4886	6.27	0.14
011141029-04	OBS	No	393.856592	421.807037	515.0	5.861	15.0	2.3	0.59	4886	1.46	0.23
011141029-05	OBS	No	393.986282	422.464455	1256.0	10.500	14.7	-1.0	0.59	4886	2.04	0.23
011141029-06	OBS	No	416.555121	499.098582	2995.0	12.590	13.5	8.5	0.59	4886	3.23	0.21
011141029-07	OBS	No	361.888147	254.296784	1568.4	3.065	10.3	6.5	0.59	4886	2.39	0.26

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011141029-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011141029-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011141029-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_TER_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS
011141029-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE_TRACKER—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS
011141029-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—SAME_NTL_PERIOD—CENT_NOFITS
011141029-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS—CENT_KIC_POS
011141029-07	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_CHASES_MARSHALL—ALL_TRANS_CHASES—MOD_POS_DV—INCONSISTENT_TRANS—CENT_FEW_DIFFS—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

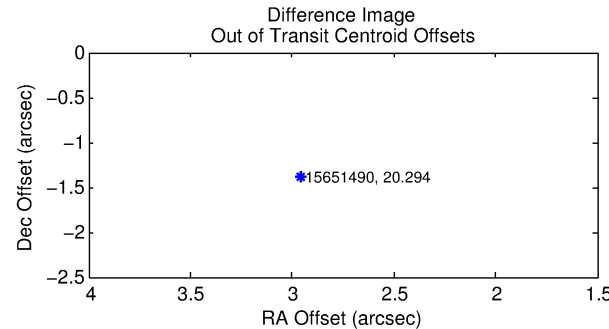
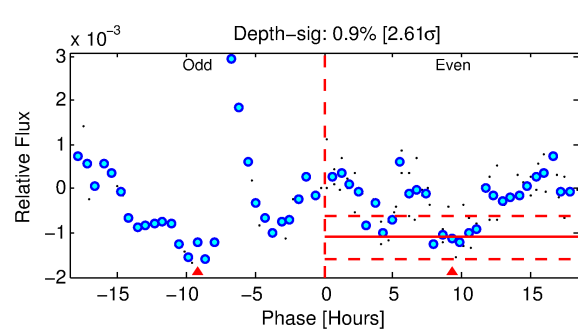
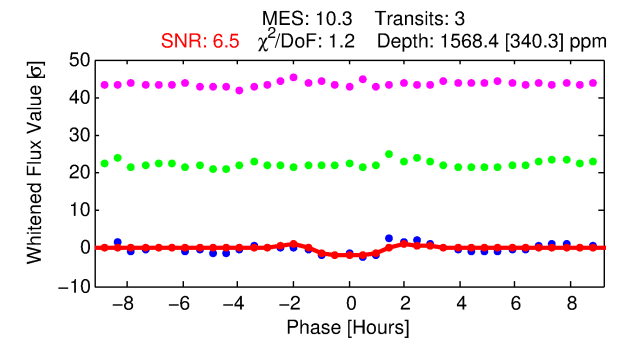
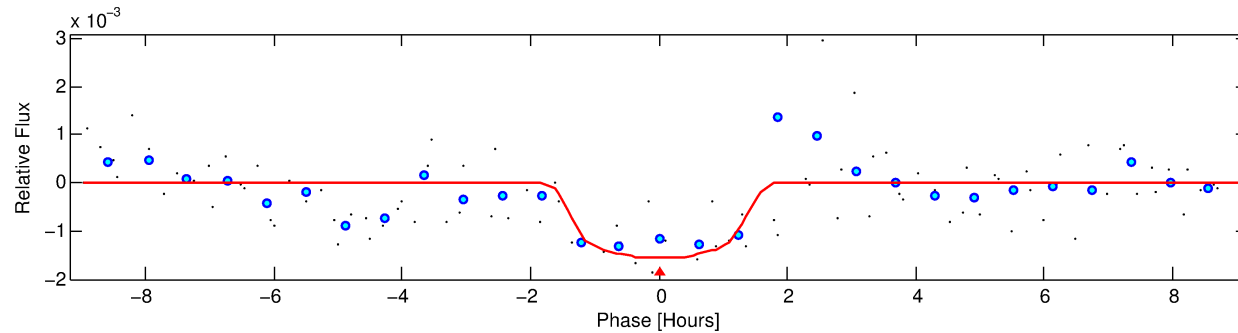
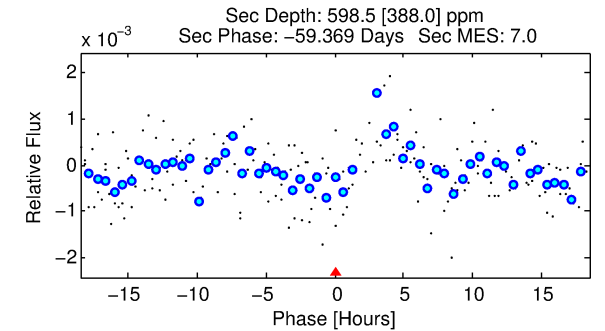
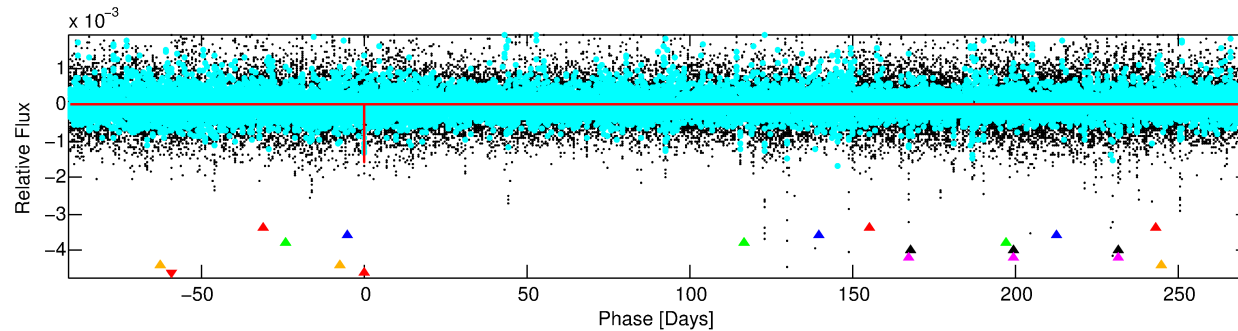
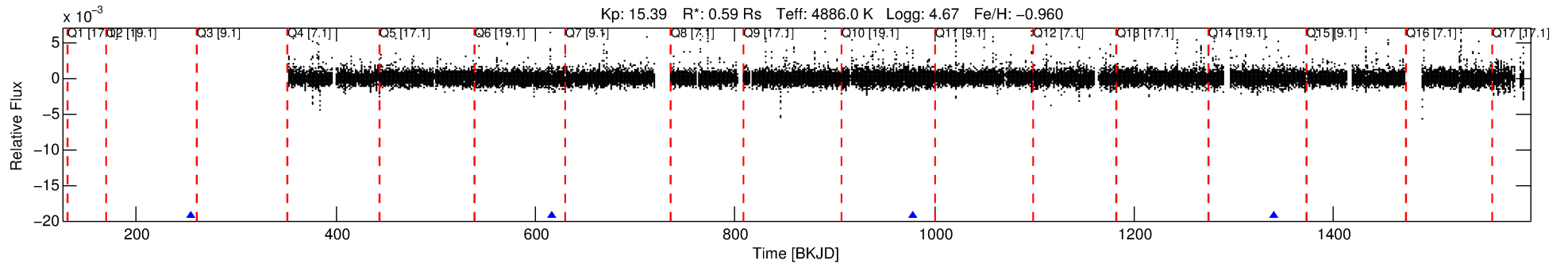
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011141029-07

No Significant Match Found

DV One-Page Summary

KIC: 11141029 Candidate: 7 of 7 Period: 361.888 d



DV Fit Results:

Period = 361.88815 [0.00894] d
Epoch = 254.2968 [0.0178] BKJD
Rp/R* = 0.0373 [0.3317]
a/R* = 787.64 [26513.38]
b = 0.56 [41.94]
Seff = 0.25 [0.04]
Teq = 181 [8] K
Rp = 2.39 [21.25] Re
a = 0.8308 [0.0569] AU
Ag = 39913.54 [711373.64] [0.06σ]
Teffp = 3959 [17643] K [0.21σ]

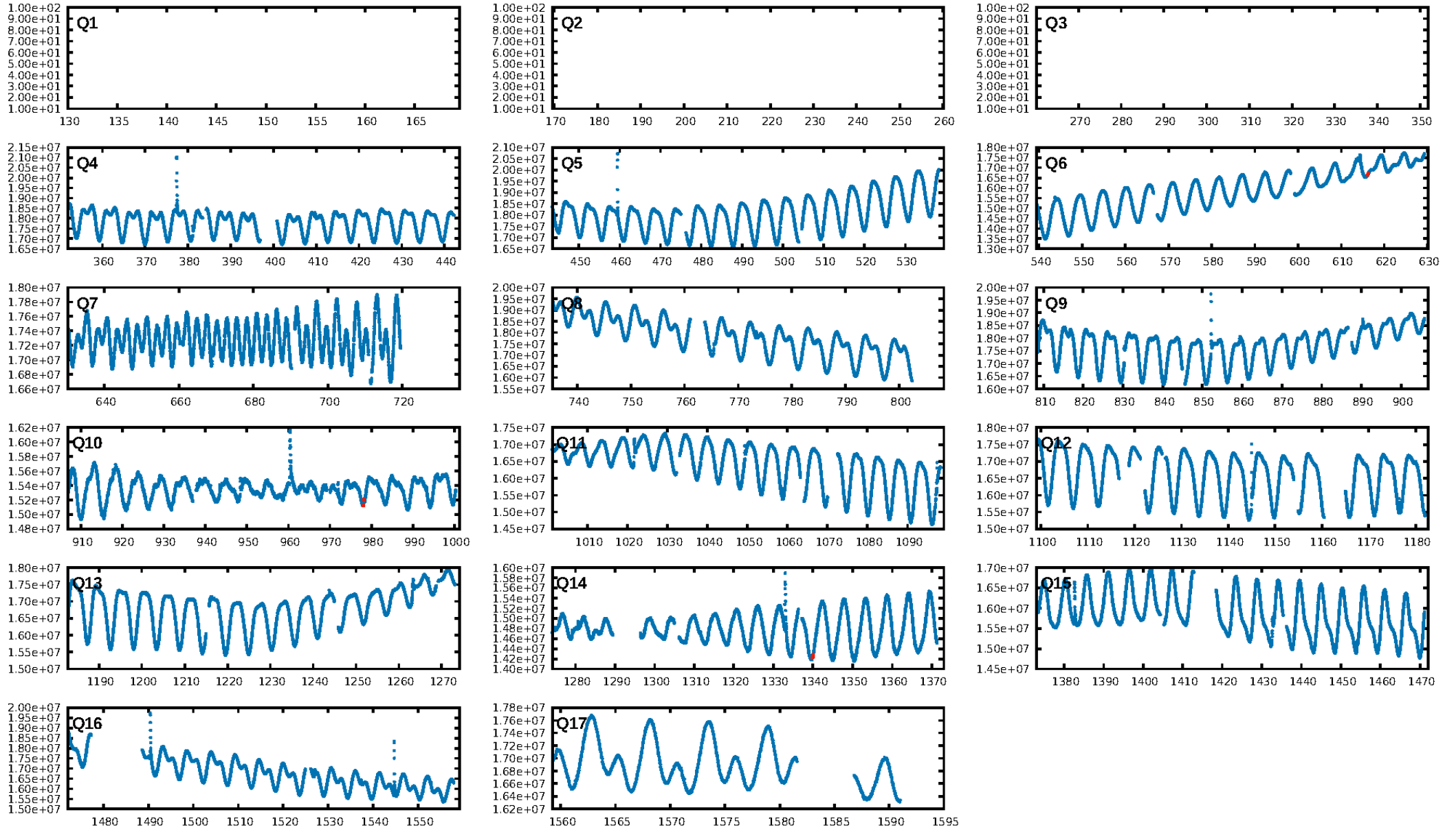
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [116.00σ]
ModelChiSquare2-sig: 2.0%
ModelChiSquareGof-sig: 88.7%
Bootstrap-pfa: 1.59e-10
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.07031
Centroid-sig: 94.5%
Centroid-so: 3.360 arcsec [2.70σ]
OotOffset-rm: N/A
KicOffset-rm: 0.532 arcsec [1.76σ]
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 2/0/0/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [3/3]

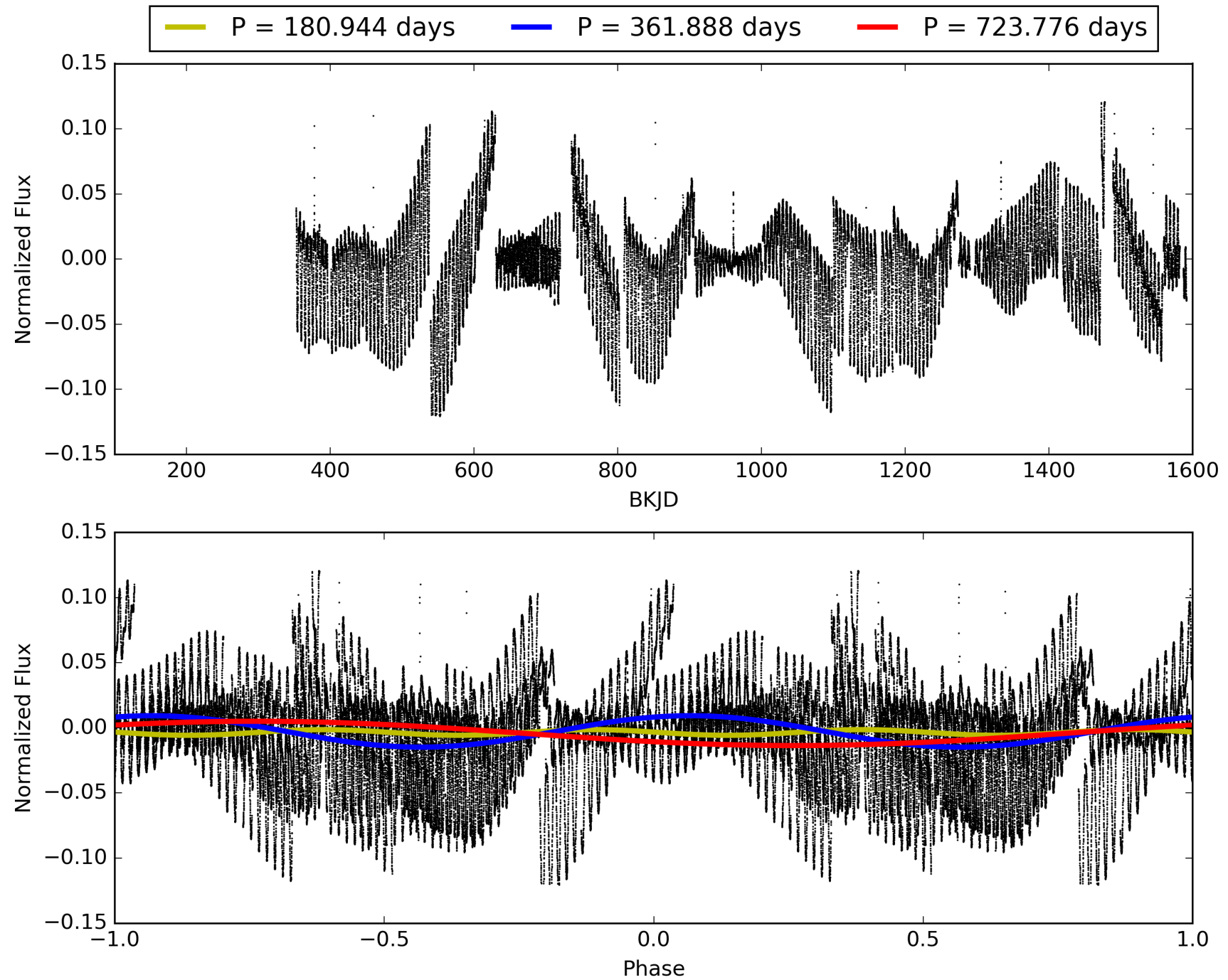
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:42:23 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 011141029-07, PDC Light Curves

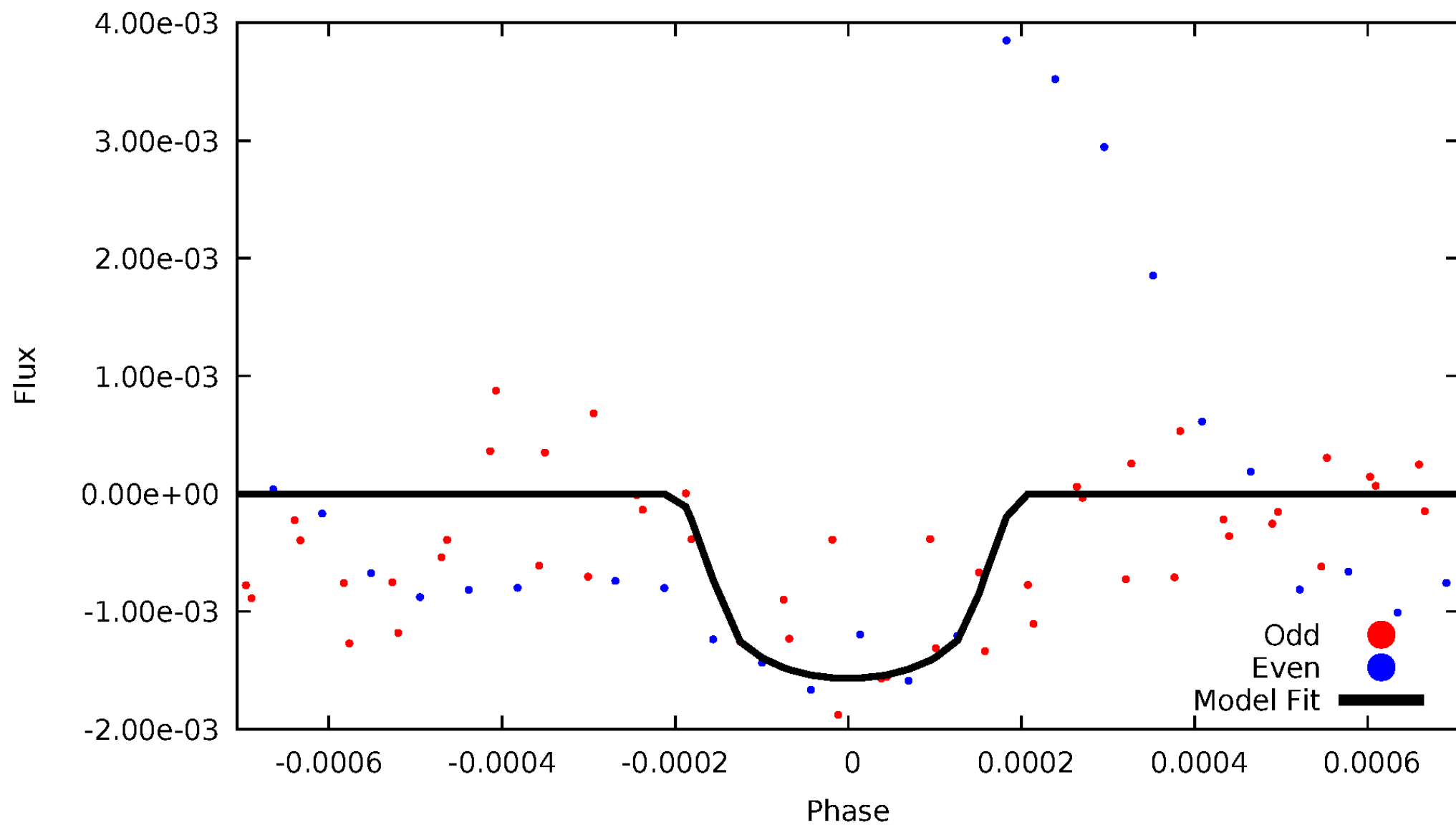


TCE 011141029-07



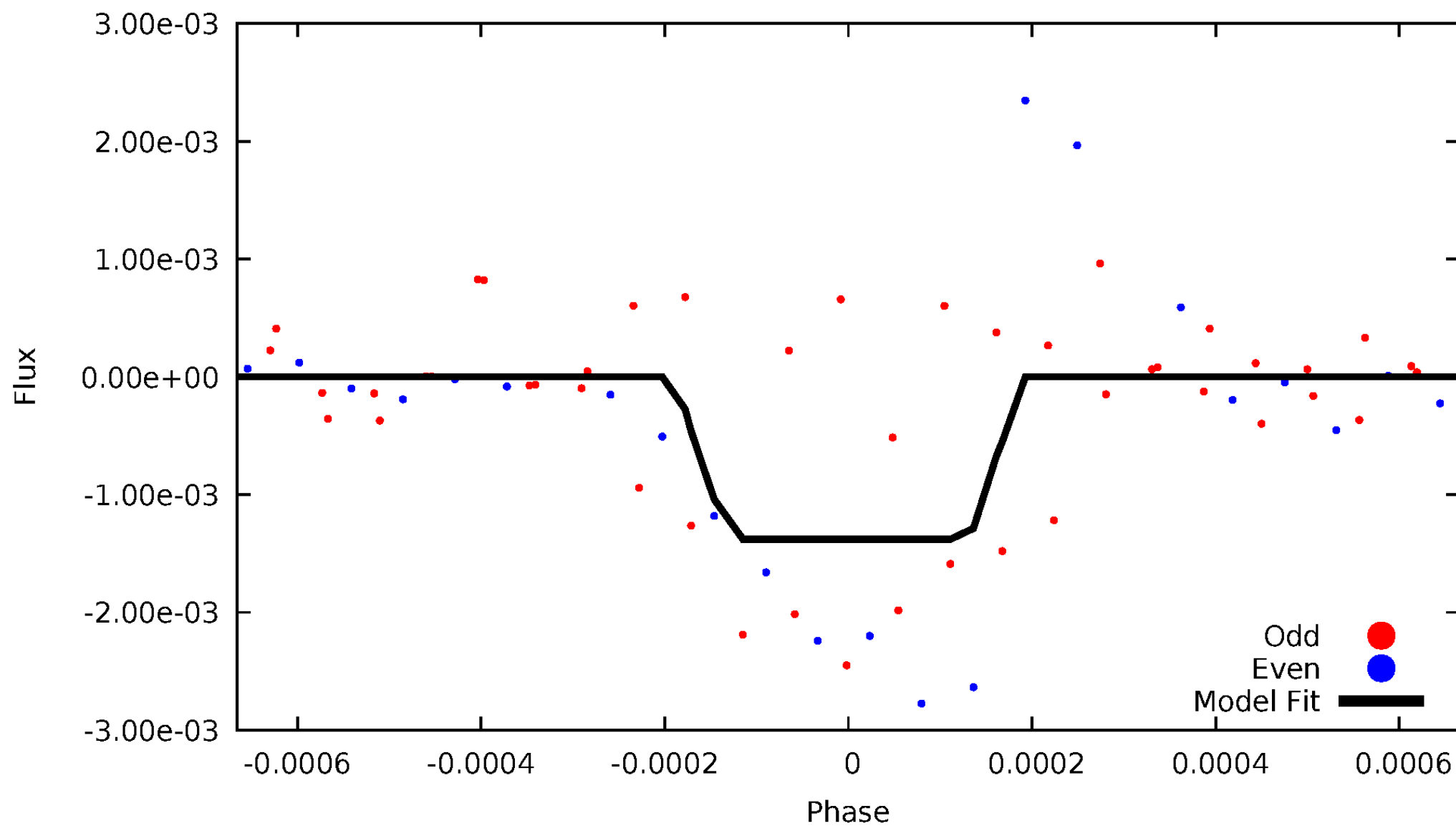
DV Odd/Even

TCE 011141029-07



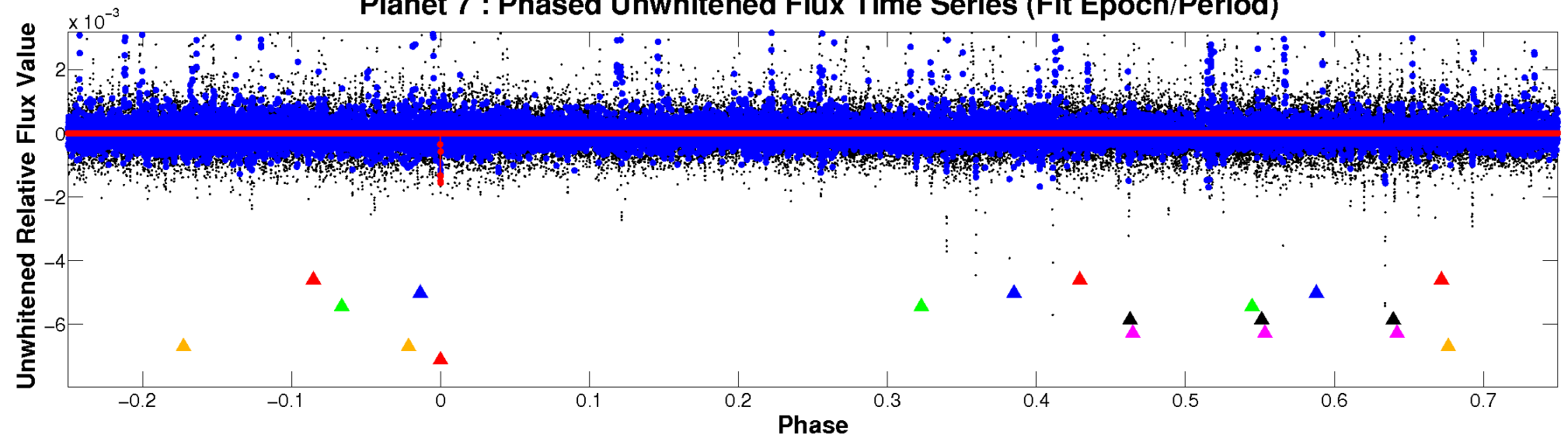
ALT Odd/Even

TCE 011141029-07

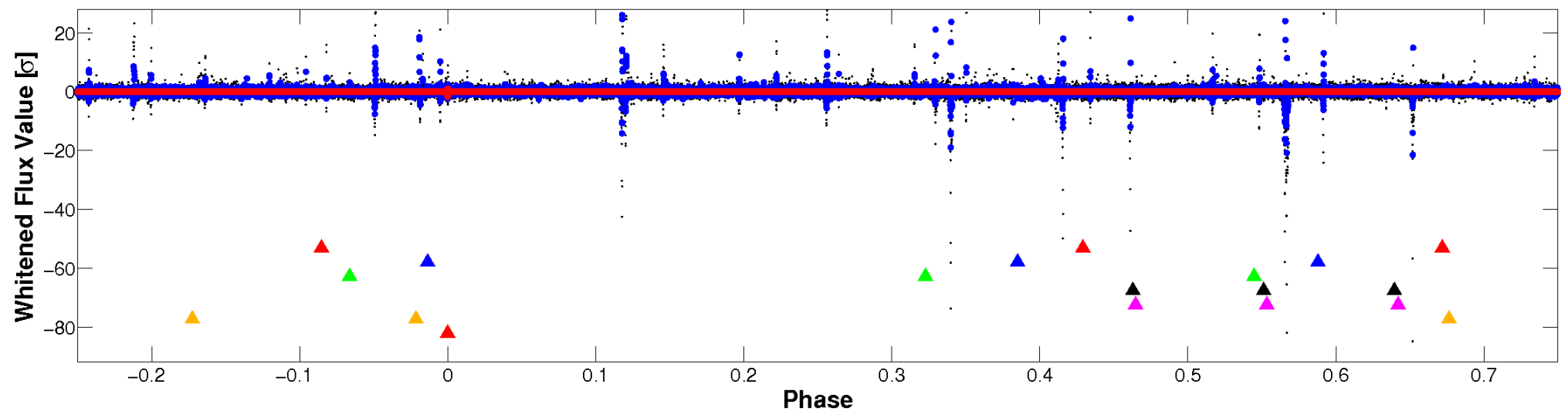


Non-Whitened Vs. Whitened Light Curve

Planet 7 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

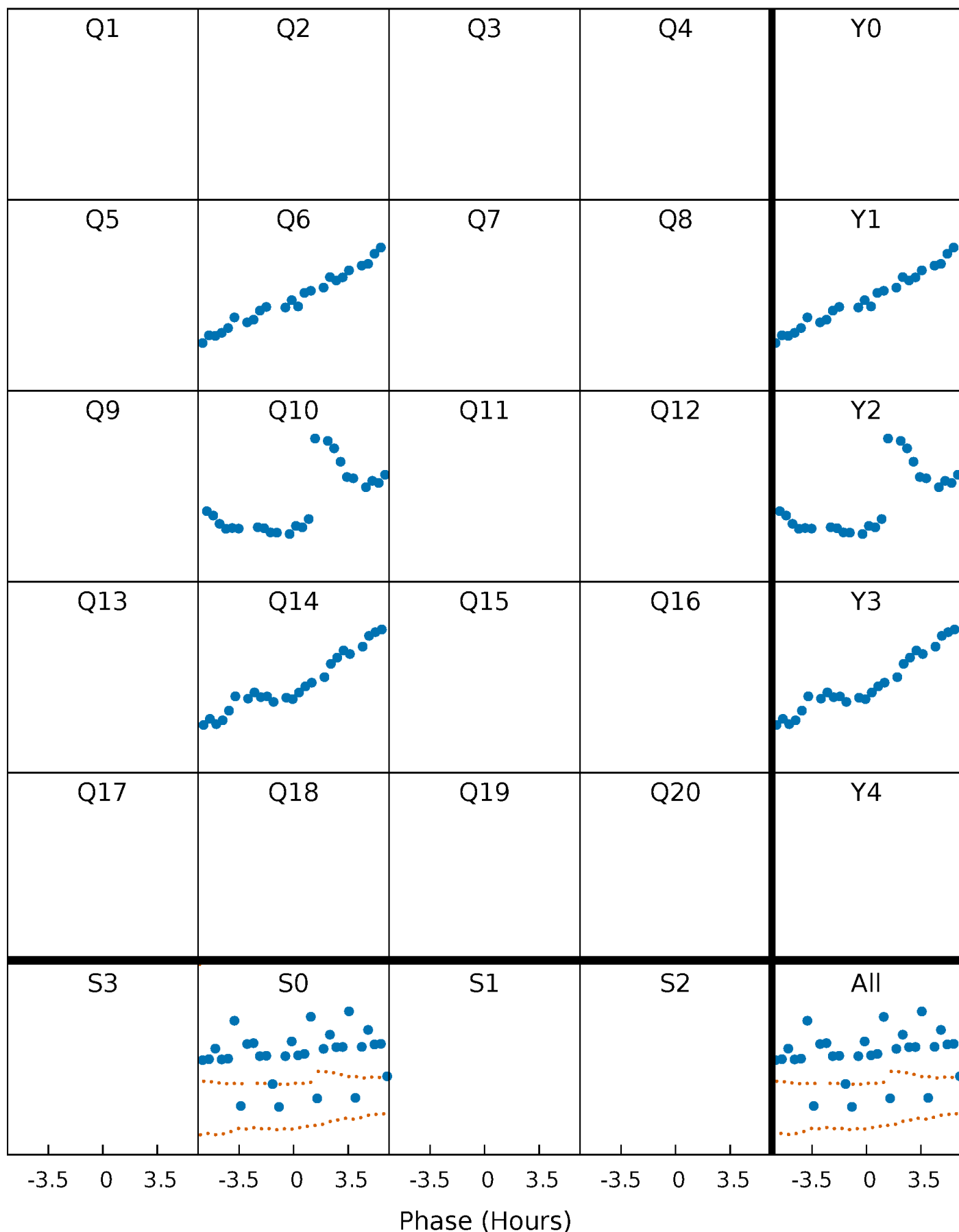


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



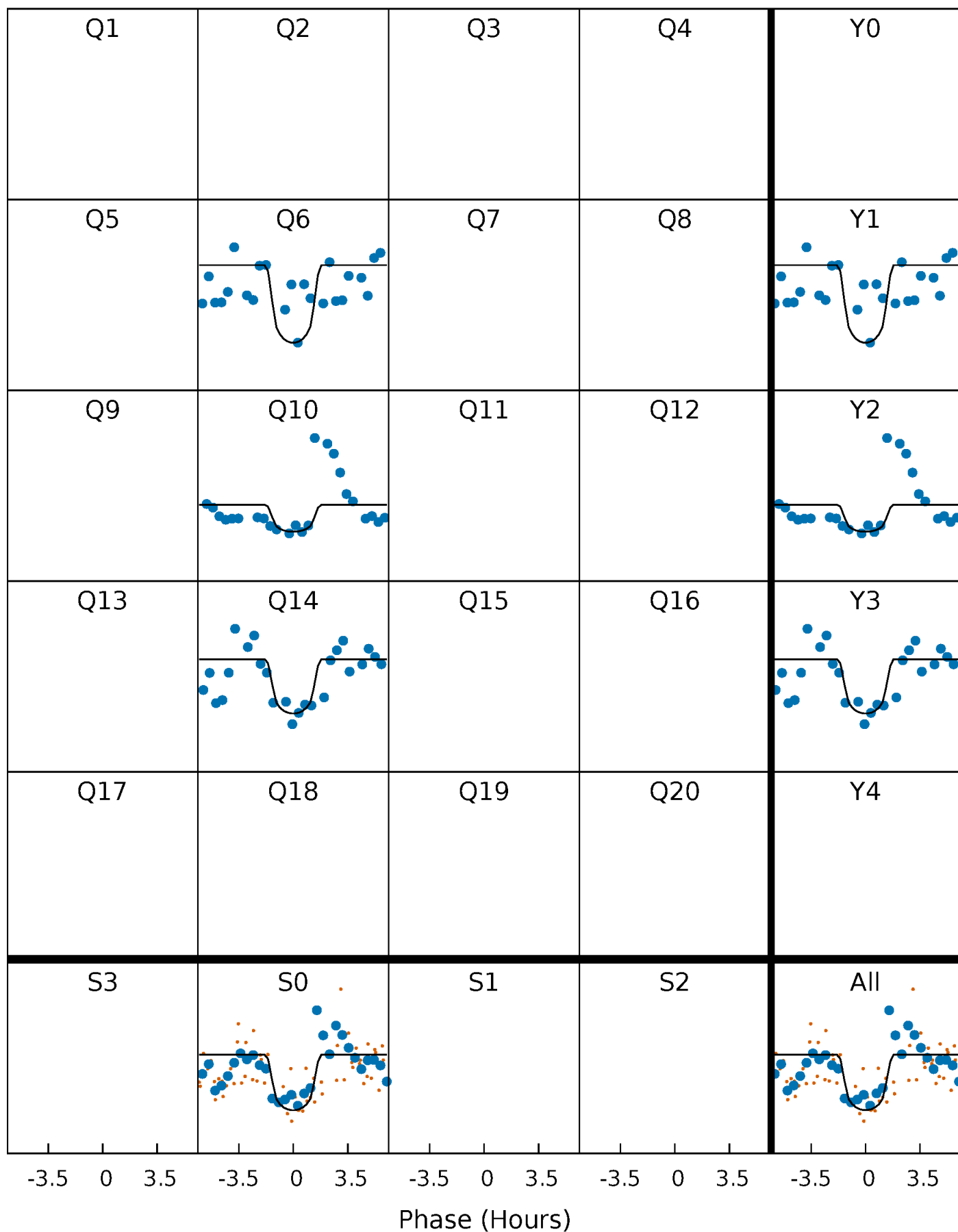
PDC Quarter-Phased Transit Curves

TCE 011141029-07 P=361.888147 Days $T_0=254.296784$ (BKJD)



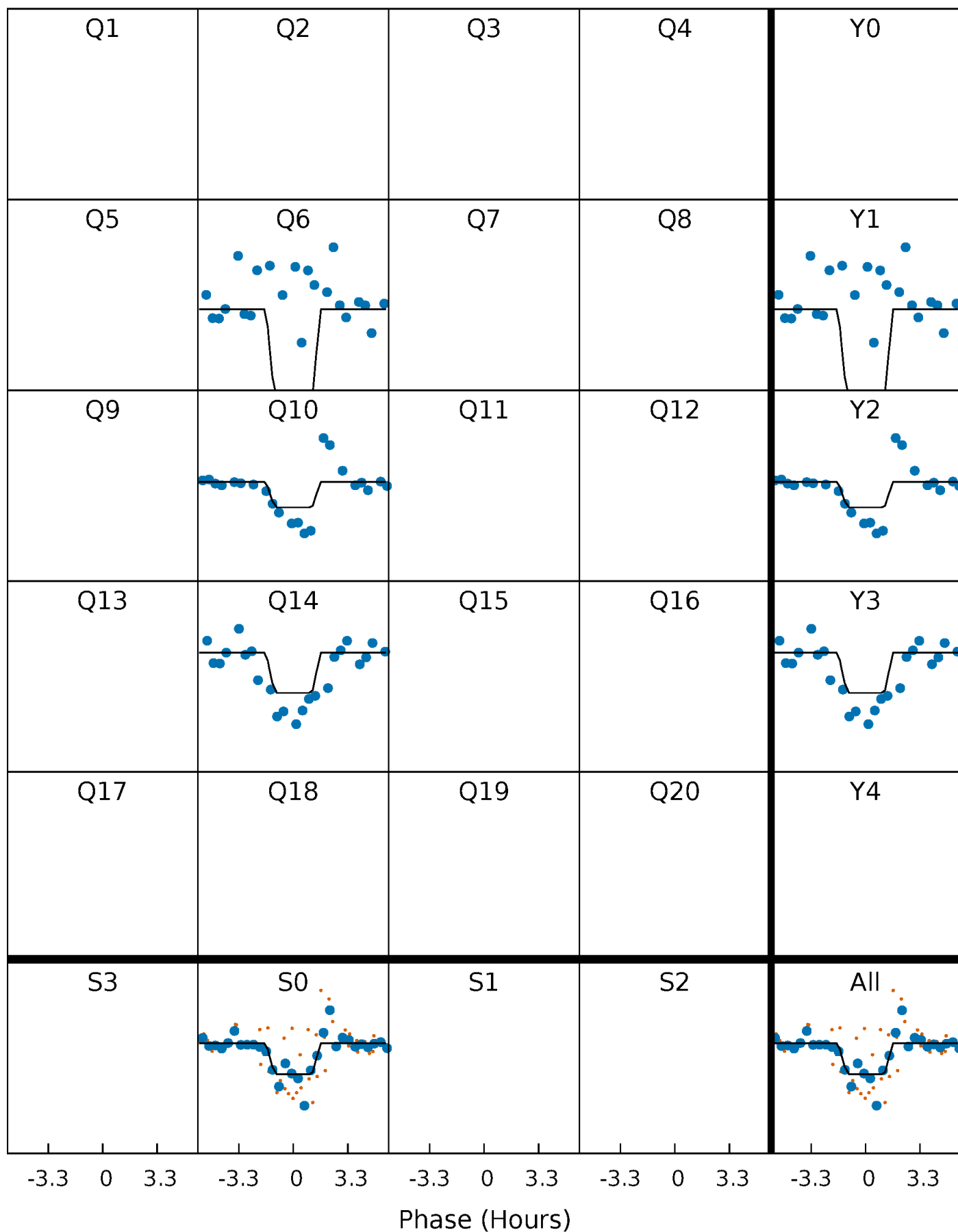
DV Quarter-Phased Transit Curves

TCE 011141029-07 P=361.888147 Days $T_0=254.296784$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

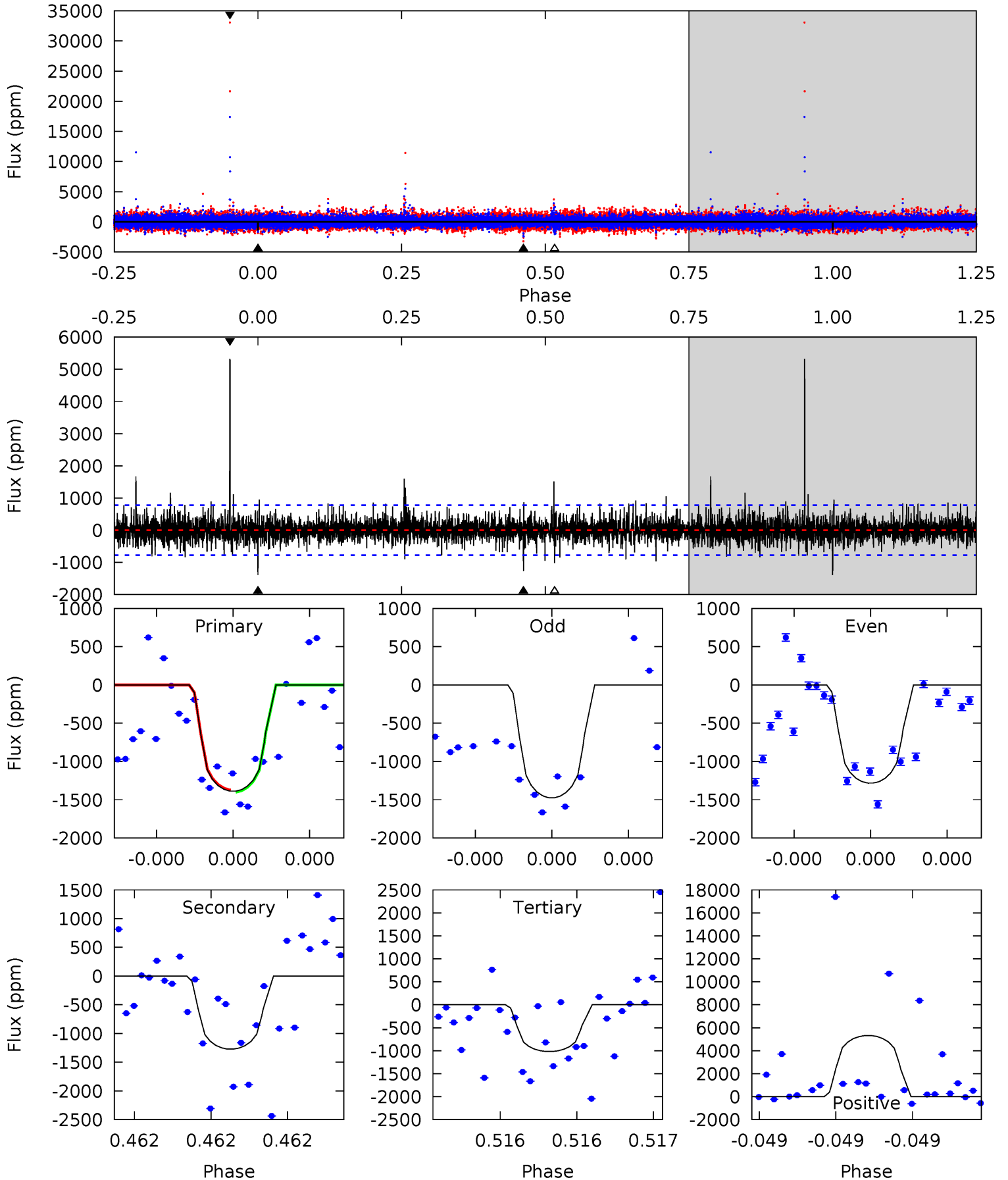
TCE 011141029-07 P=361.888186 Days $T_0=254.293072$ (BKJD)



DV Model-Shift Uniqueness Test

011141029-07, P = 361.888147 Days, E = 254.296784 Days

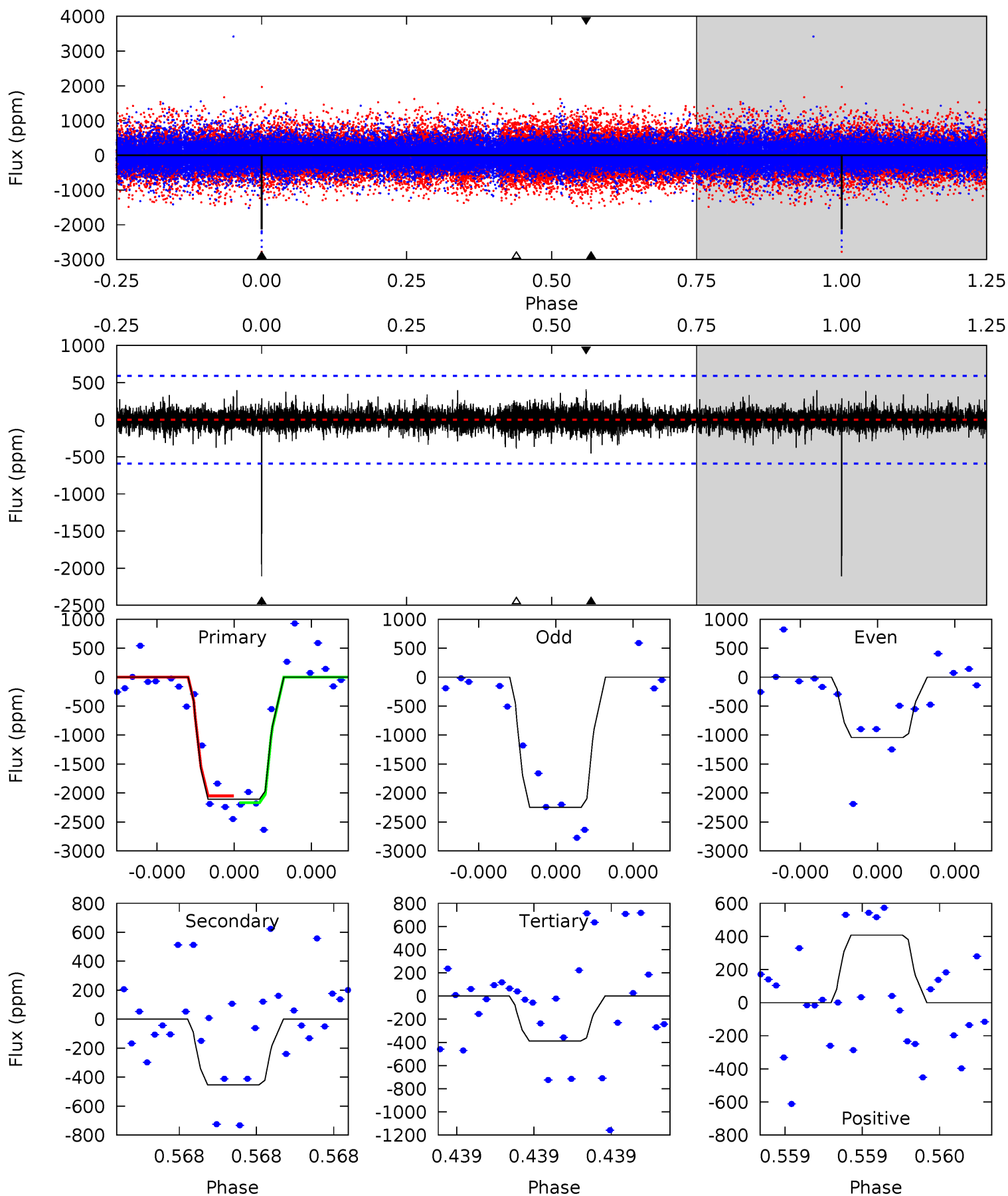
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.1	9.22	7.37	38.6	5.63	3.56	1.77	2.69	-28.5	1.85	-29.4	0.39	0.90	0.79	0.10



Alt Model-Shift Uniqueness Test

011141029-07, P = 361.888186 Days, E = 254.293072 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.1	4.32	3.70	3.89	5.64	3.58	0.74	16.4	16.2	0.62	0.43	6.40	0.64	0.16	0.55



Stellar Parameters For KIC 011141029

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4886^{+175}_{-175}	$4.667^{+0.056}_{-0.036}$	$-0.960^{+0.300}_{-0.300}$	$0.587^{+0.047}_{-0.042}$	$0.584^{+0.055}_{-0.025}$	$4.064^{+0.916}_{-0.559}$
	+4%/-4%	+1%/-1%	+31%/-31%	+8%/-7%	+9%/-4%	+23%/-14%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011141029-07 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1272 ± 138	$15.70^{+16.76}_{-11.49}$	253^{+10}_{-10}	2625^{+1217}_{-419}	1952^{+24690}_{-1492}
Alt.	-452 ± 105	$14.71^{+16.06}_{-10.26}$	252^{+10}_{-10}	2356^{+857}_{-359}	794^{+7483}_{-616}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

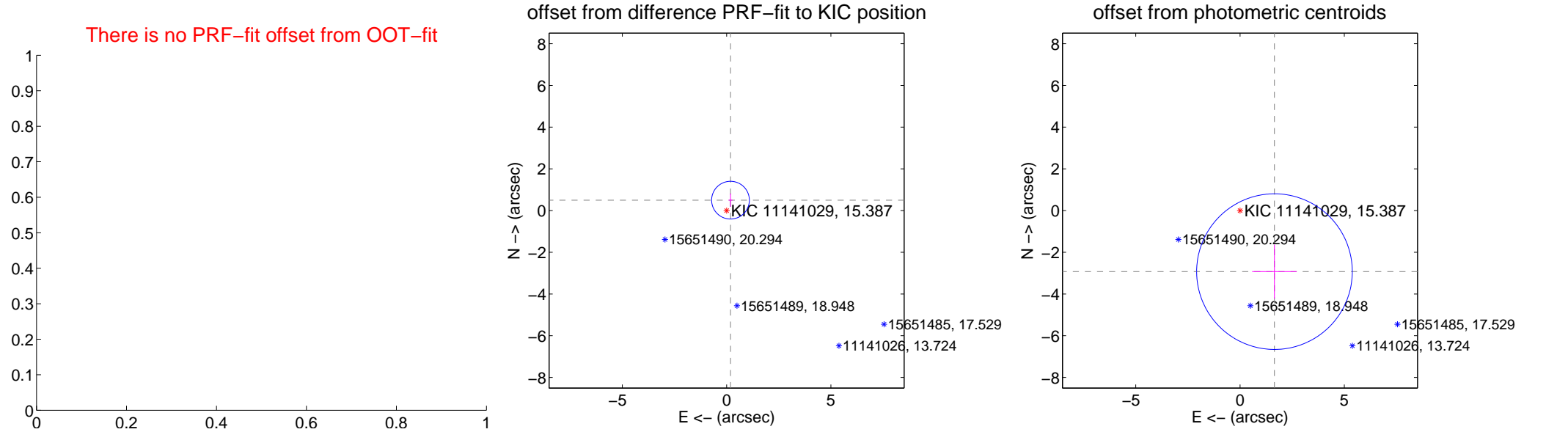
DV Centroid Data

Supplemental centroid analysis for 011141029-07. Kepler magnitude: 15.39. Transit SNR 6.48

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

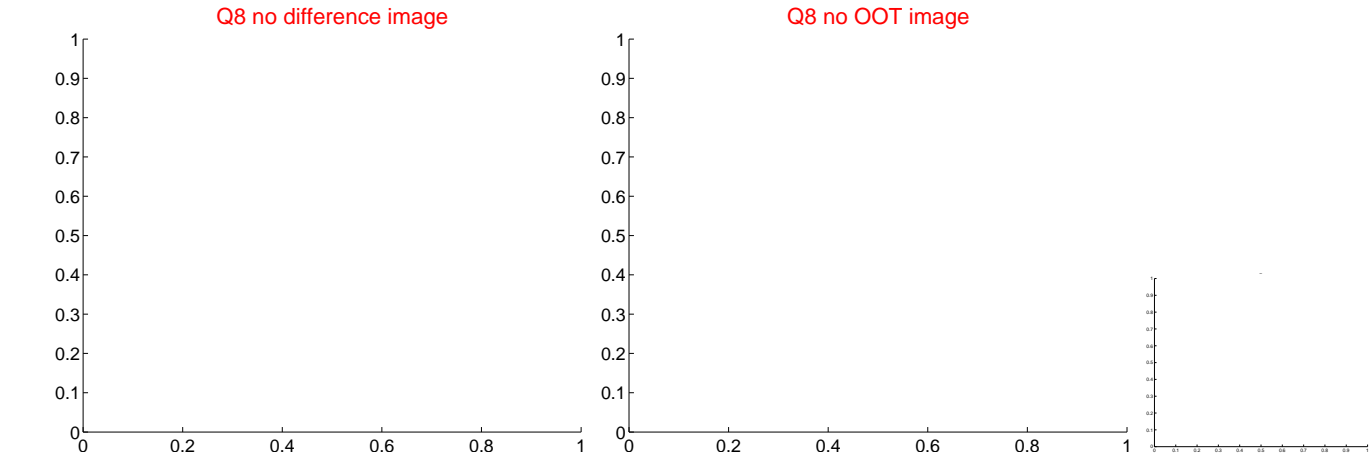
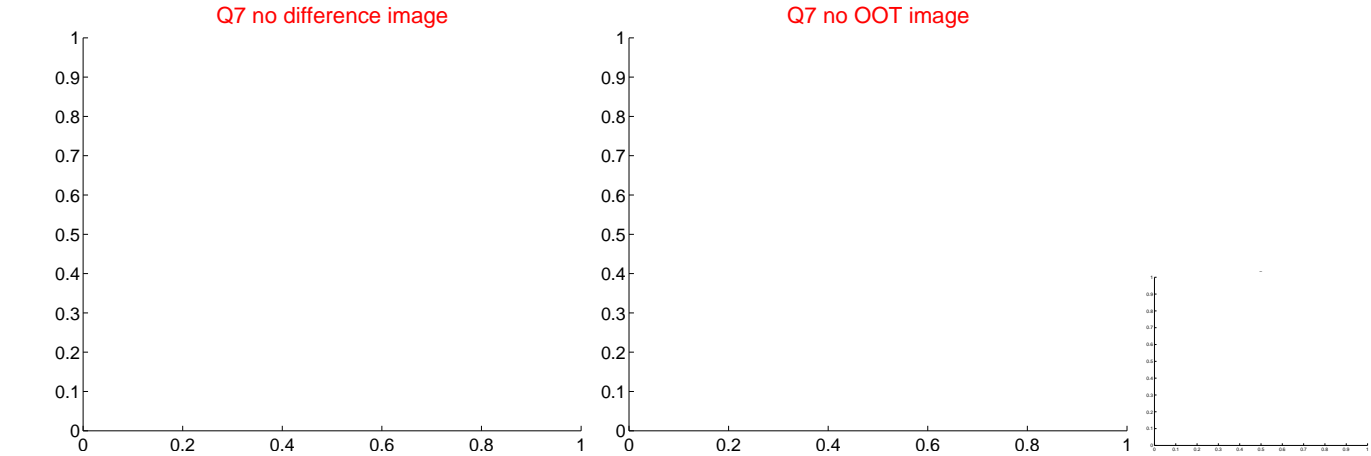
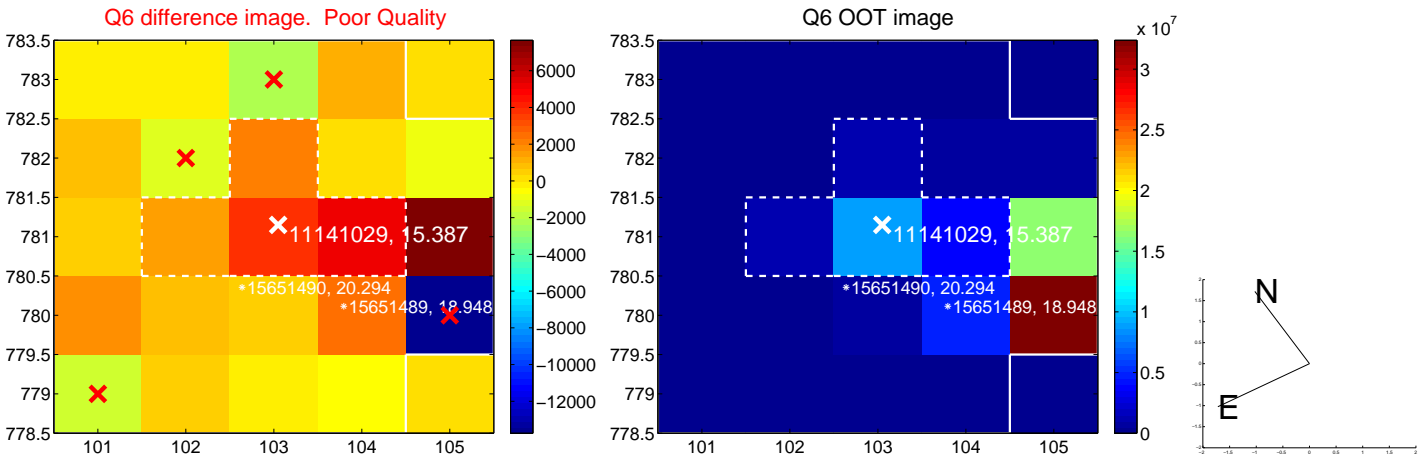
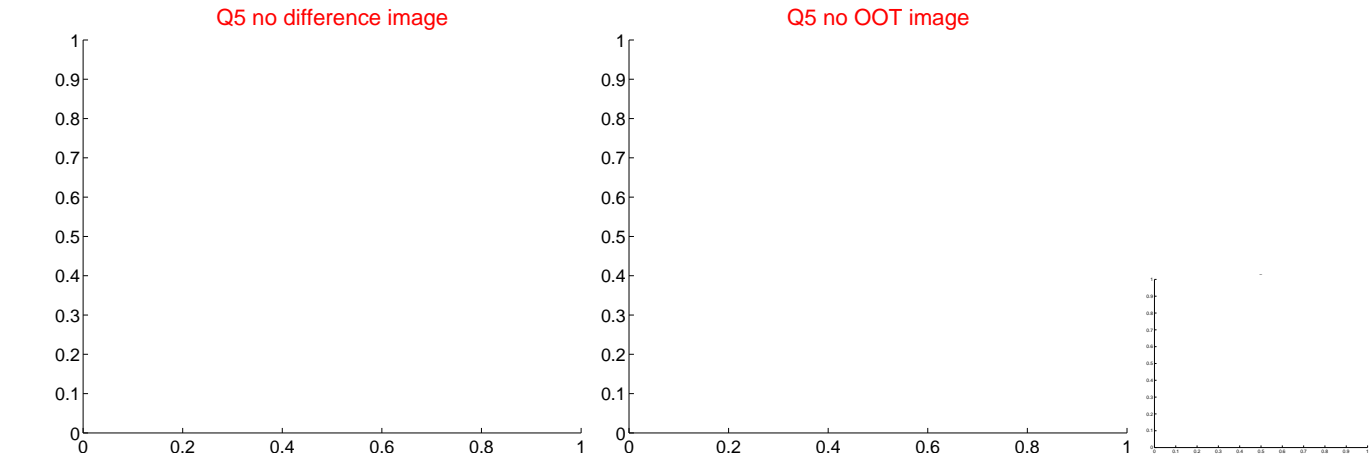
	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	0.532 ± 0.302	1.76	-0.186 ± 0.094	0.499 ± 0.320
photometric centroid source offset	3.36 ± 1.24	2.70	-1.65 ± 1.07	-2.93 ± 1.29



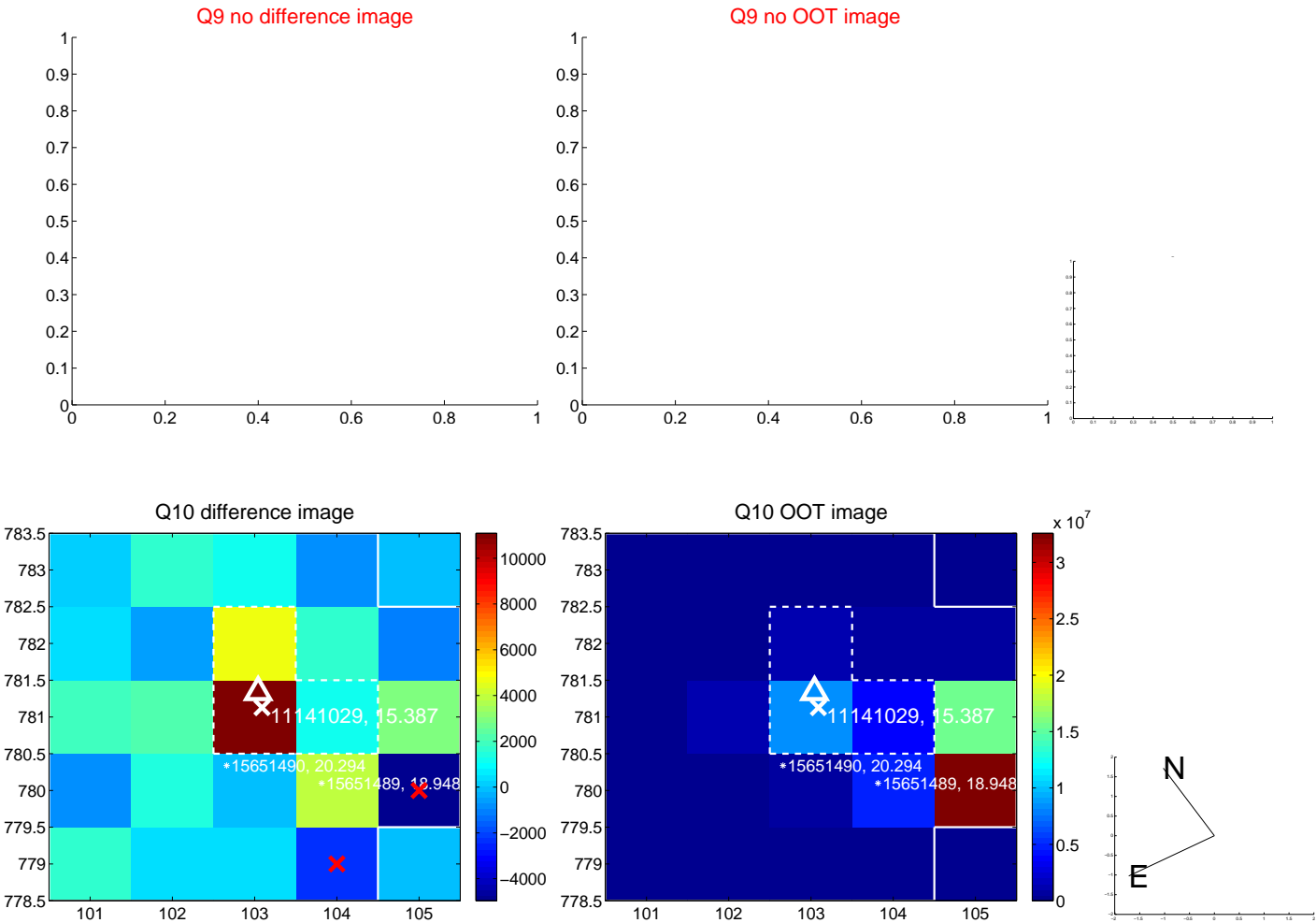
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



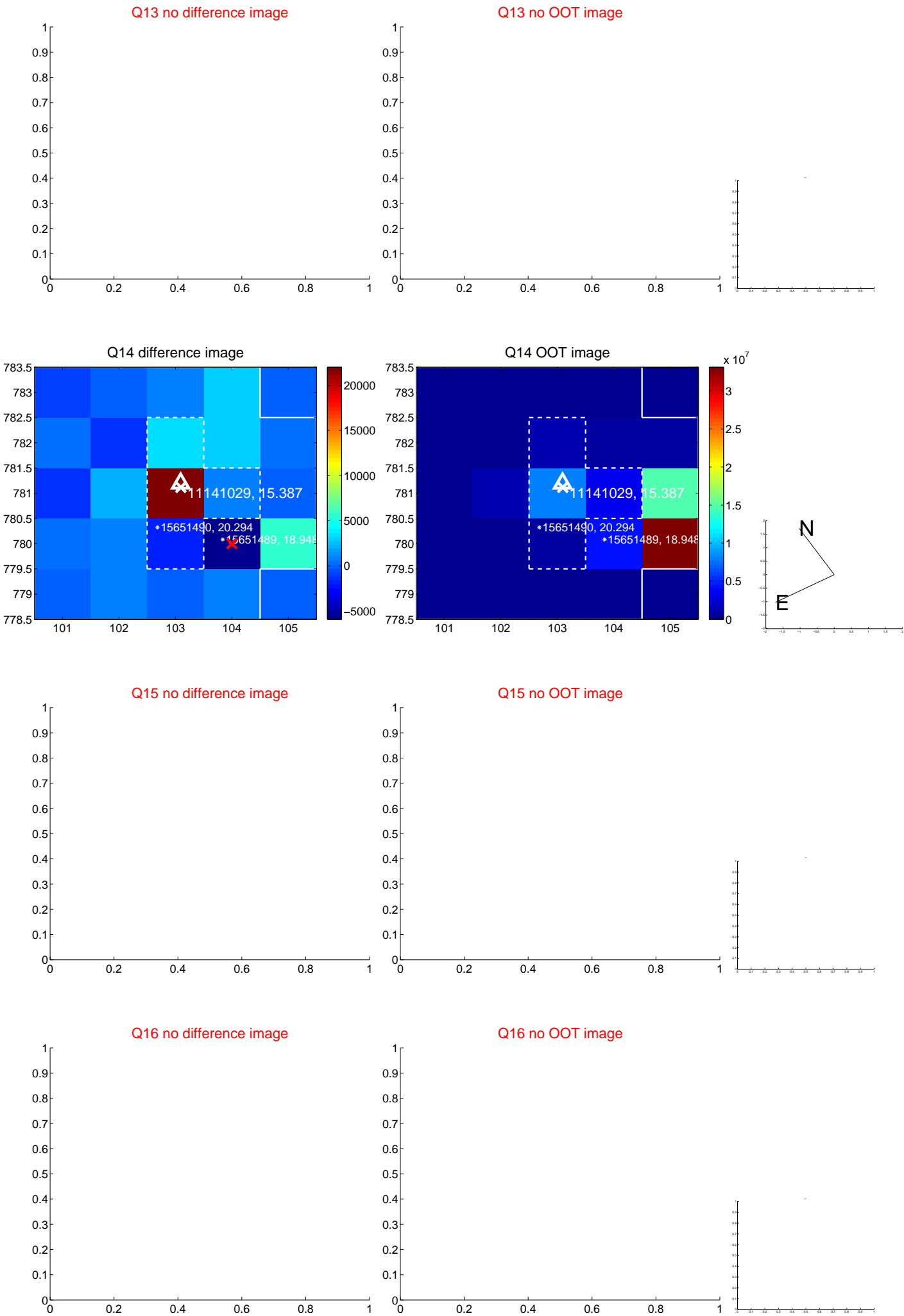
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



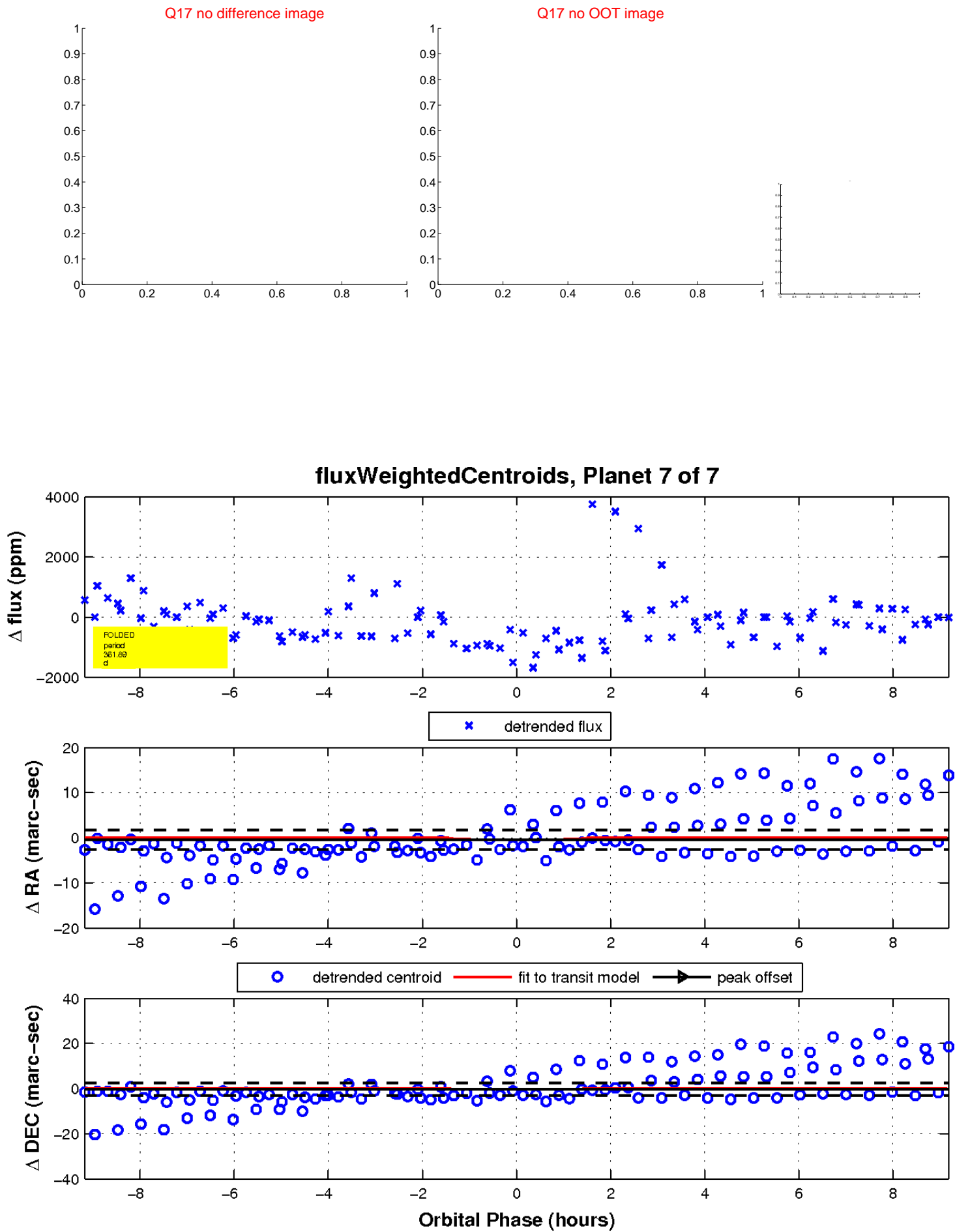
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

